

Imperial Japan's Human Experiments Before And During World War Two

2013

Alan Vanderbrook
University of Central Florida

Find similar works at: <http://stars.library.ucf.edu/etd>

University of Central Florida Libraries <http://library.ucf.edu>

 Part of the [History Commons](#)

STARS Citation

Vanderbrook, Alan, "Imperial Japan's Human Experiments Before And During World War Two" (2013). *Electronic Theses and Dissertations*. 2589.
<http://stars.library.ucf.edu/etd/2589>

This Masters Thesis (Open Access) is brought to you for free and open access by STARS. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of STARS. For more information, please contact lee.dotson@ucf.edu.

IMPERIAL JAPAN'S HUMAN EXPERIMENTS BEFORE
AND DURING WORLD WAR TWO

by

ALAN JAY VANDERBROOK
B.A. University of Central Florida, 2009

A thesis submitted in partial fulfillment of the requirements
for the degree of Master of Arts
in the Department of History
in the College of Arts and Humanities
at the University of Central Florida
Orlando, Florida

Spring Term
2013

ABSTRACT

After Japan occupied Manchuria in 1931, Ishii Shiro created Unit 731 and began testing biological weapons on unwilling human test subjects. The history of Imperial Japan's human experiments was one in which Ishii and Unit 731 was the principal actor, but Unit 731 operated in a much larger context. The network in which 731 operated consisted of Unit 731 and all its sub-units, nearly every major Japanese university, as well as many people in Japan's scientific and medical community, military hospitals, military and civilian laboratories, and the Japanese military as a whole. Japan's racist ultra-nationalist movement heavily influenced these institutions and people; previous historians have failed to view Japan's human experiments in this context. This thesis makes use of a combination of declassified United States government and military documents, including court documents and the interviews conducted during the Unit 731 Exhibition that traveled Japan in 1993 and 1994, and then recorded by Hal Gold in his book, *Unit 731 Testimony*, along with a number of secondary sources as supporting material. Each of these sources has informed this work and helped clarify that Unit 731 acted within a broader network of human experimentation and exploitation in a racist system, which normalized human atrocities. Attitudes of racism and superiority do not necessarily explain every action taken by Japanese military personnel and scientists, nor did every individual view their actions or the actions of their countrymen as morally correct, but it does help explain why these acts occurred. What enabled many Japanese scientists was the racist ideology of the ultra-nationalist movement in Japan.

TABLE OF CONTENTS

NOTE ON NAMES	v
I. INTRODUCTION.....	1
Background.....	3
Responsibility	5
The United States.....	9
Rooted in Racism.....	11
Conclusion	13
II. HISTORIOGRAPHY	16
III. THE MACHINE: ULTRA-NATIONALISM AND RACISM.....	34
Ultra-Nationalism	34
The Racism of the Military Machine	37
Beyond Unit 731: Unit 100.....	40
Unit Ei 1644.....	42
Unit 516	43
Other Known Units.....	44
The Broader Context.....	47
IV. THE UNITED STATES AND COVER-UP.....	55
Investigation.....	60

The Khabarovsk Trials.....	67
Rockets, Biology, and the Cold War	71
End of the Secret.....	73
V. CONCLUSION.....	76
REFERENCES	87
Primary.....	87
Secondary.....	88
Books	88
Journal Articles	89

NOTE ON NAMES

Names in Japan are not written the same way as in Western countries. To reflect this, where possible, all names are written in their traditional order. This is to say, a person's family name is written first and the given name is written last. For example, John Smith is Smith John. All effort has been made to maintain this naming convention. This same order is used in the footnotes and bibliography where applicable. Where individuals are introduced without a full name given, it is because they were omitted by the original source.

I. INTRODUCTION

The setting was World War II in Japanese occupied China, the date unspecified, and several Japanese Imperial Army doctors-in-training entered a room at an Imperial Army hospital in China. A colonel and several others waited along with two Chinese prisoners. The first was a big man, possibly a soldier, and the other a farmer. Standing nearby were two operating tables, surgical instruments, and several nurses and doctors who oversaw the proceedings. The large man slowly walked to one of the tables, showing no signs of fear though he likely knew what was about to happen. The farmer refused to lie down when taken to another table. A nurse spoke to him and said, “We’re using ether; it won’t hurt, so lie down.”¹ Once the prisoners were under, the surgical operation began, yet neither man had anything medically wrong with him. The farmer died during the course of the operation and the big man was killed with an injection of anesthesia. This story is not a work of fiction but an account from Yuasa Ken, one of the army doctors who were assigned to practice on the prisoners. He does not mention why these men were chosen to be used as experimental material other than that they were captured by the Japanese army. Using prisoners for experiments or surgical practice was not an abnormal occurrence and scenes like this played out across the Japanese Empire. Yuasa mentions that the nurse who spoke to the farmer acted as if the event was normal and when he asked her about the operation later, she claimed not to remember, presumably because she had participated in so many vivisections. He was not concerned with the morality of what he was doing. Yuasa was more concerned with looking good and not getting his uniform dirty because he wanted "to look

¹ Yuasa Ken, “Army Doctor (Yuasa Ken)” in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 208.

sharp" in front of his superiors.² He partly blames this attitude on his education, which he states was racist and militaristic. Yuasa was educated in the principles of the ultra-nationalist movement in Japan of the early 20th century. These principles combined racism and militarism to produce men and women driven to commit crimes under the belief they were advancing Japan's national goals. Yuasa's story is not an isolated one, and in many cases ether and other types of anesthesia were not used, leaving many prisoners fully awake and aware during the operations.

Yuasa worked in an army hospital, which mainly treated wounded Japanese soldiers. His story and other stories of similar practices suggest his actions were common. In puppet state of Manchukuo, the now infamous Japanese biological warfare research unit led by General Ishii Shiro known as Unit 731 conducted similar training exercises on humans, most of whom were Manchurian and Chinese.³ The purpose of Unit 731 was to conduct research into the development and usage of biological and chemical weapons for the Japanese military in its quest to create an empire across Asia known as the Greater East Asia Co-Prosperity Sphere. Unit 731 was not alone in conducting these experiments, as can be attested to by Yuasa Ken's work at an army hospital unrelated to Unit 731. Unit 731 and other similar units were a fully integrated part of Imperial Japan's war machine. The men and women who served in these units were educated in a racist ideology, which placed the Japanese nation and people above all others. The Emperor of Japan was seen as a living god, and any act committed in his service was justified. Previous research of Japan's human experiments has largely skipped over the role racism played in

² Yuasa, 208

³ Ibid, 204-214.

motivating military personnel and scientists to conduct experiments, yet racism played a central role in the push to develop biological weapons.

Background

In 1931, the Japanese Kwantung Army invaded Manchuria after staging a fake Chinese attack called the Mukden Incident. Manchuria was renamed Manchukuo and essentially, became a colony of Japan.⁴ Ishii began human experiments at a facility in Harbin called Beiyinhe shortly after the takeover of Manchukuo.⁵ Ishii remained at Beiyinhe until 1938 when his unit moved twenty-four kilometers south of Harbin to a facility known as Ping Fan.⁶ Ping Fan was the site of the majority of Ishii's experiments. The facility studied diseases such as bubonic plague, anthrax, syphilis, and toxins such as fugu toxin.⁷ Ping Fan also developed delivery systems for the biological weapons and tested these bombs at the nearby Anda airfield. General Ishii Shiro, founder and leader of the Imperial Army biological warfare research Unit 731, was a flamboyant and arrogant man who was disposed to grandiose schemes and outlandish claims. Often described as eccentric, yet highly intelligent and energetic, Ishii is viewed as the father of Japan's biological weapons program for the role he played in pushing the high command to fund biological weapons research. He was not the only person conducting experiments, as there were many other biological warfare research centers similar to Ishii's Unit 731

Ishii was accepted to the Medical Department of Kyoto Imperial University in April 1916. Here he quickly came to the attention of the senior professors who gave him research

⁴ Sheldon H. Harris, *Factories of Death: Japanese Biological Warfare in 1932 – 45 and the American Cover-up*. (London: Routledge, 1994), 8-9.

⁵ Ibid, 27.

⁶ Peter Williams and David Wallace, *Unit 731: Japan's Secret Biological Warfare in World War II* (New York: The Free Press, A Division of Macmillan Inc., 1989), 18.

⁷ Harris, 82

assignments that were advanced for his age and training. His quick mind was not exposed to a single structured class on medical ethics.⁸ In fact, medical ethics was not emphasized in Japan and most schools did not offer it as a course, nor was the Hippocratic Oath taken by graduating doctors. Medical ethics was not taught in schools, according to Sheldon H. Harris, because it was assumed inherent and that students understood the purpose of becoming a doctor was to help people and do no harm.⁹ Instead, many of these young men were instilled with a very strong sense of nationalism and patriotic duty. This led some scientists to believe that medicine should be used as a weapon to accomplish the goals of the country. Along with this sense of nationalism came a strong sense of racial superiority, which was believed to be backed up by science. In this era of rapid scientific discovery, science was king. Like many of his fellow medical officers, Ishii was an ardent ultra-nationalist who believed he could use science and medicine to further Japan's goals.¹⁰ Japan's ultra-nationalist factions believed it was Japan's rightful place to rule over Asia and that the Japanese were a sacred and pure race whose duty was to "liberate" other Asians from colonial rule.¹¹

Ishii had a strong desire to advance his position, and he did so often to the chagrin of others who considered him brash, pushy and arrogant. Ishii violated social norms by fraternizing with those who were socially above his station. Ishii was often seen with Araki Torasaburo, the president of Kyoto University where Ishii graduated as a medical doctor in 1920 at the age of twenty-eight.¹² Ishii eventually married President Araki's daughter and solidify his relationship

⁸ Harris, 15.

⁹ Ibid. Nazi doctors were administered the Hippocratic Oath, yet they also conducted human experiments.

¹⁰ Ibid, 14-15.

¹¹ John W. Dower, *War Without Mercy: Race and Power in the Pacific War* (New York: Patheon Books, 1986), 289.

¹² Williams and Wallace, 16-17.

with Kyoto's medical school and research department.¹³ It was not long after he graduated that Ishii joined the army and was commissioned as a lieutenant. In 1922, Ishii transferred to the First Army Hospital in Tokyo where he pursued research, which was his true passion, not general practice.¹⁴ During Ishii's military career, he maintained the ties he had built at Kyoto University and other leading research institutes like Tokyo University. He later used these universities as recruiting grounds to bring young scientists and doctors into his employ.¹⁵ Ishii's connections within the Japanese university system were extensive thanks to his marriage and charismatic personality.¹⁶ This network of allies within the military and universities served Ishii later in life by allowing him to secure funding and personnel. The universities and military provided the means to conduct his research but it was his ties to the ultra-nationalist movement in Japan that motivated his actions.

Responsibility

From 1931 until the closing days of World War II in 1945, Japanese scientists, soldiers, and civilians committed numerous and varied crimes against humanity, including murder, human experimentation, the use of humans for surgical practice, forced labor, and bayonet practice for soldiers, and often extended beyond those listed here. The responsibility rests with the commanders above Ishii and deep into the structure of the Tokyo High Command. Ishii's funding was such that he could not have been acting on his own or with only the aid of the Kwantung Army, the Japanese military force that occupied Manchukuo. At the end of the war, there was a concerted effort by the Japanese government to disconnect the imperial family from

¹³ Hal Gold. *Unit 731: Testimony* (Tokyo: Yenbooks, 1996), 23-24.

¹⁴ Harris, 15.

¹⁵ *Ibid*, 17-18.

¹⁶ Meguro Masahiko, "Pharmacist attached to the laboratory at Dalian" in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 243-244.

the actions of the Japanese military to protect the Emperor from prosecution, but eyewitness testimony states that an imperial prince, who was cousin to Emperor Hirohito, was present at tests involving humans.¹⁷ Some historians, such as Daniel Barenblatt, speculate that the Emperor may have been privy to what was going on in the camps. Early in the investigation of Unit 731 by the United States, one of Ishii's top officers, named Naito Ryoichi, listed the Emperor at the top of the chain of command of Unit 731. Most of the evidence for the Emperor's involvement is circumstantial, such as the Emperor's cousin, Prince Takeda, being present at field tests. The Emperor's youngest brother Mikasa watched films of bubonic plague bombs being loaded onto planes and dropped on Chinese civilian centers.¹⁸ Tojo Hideki, Prime Minister of Japan from 1941 to 1944, also knew about the experiments, having been shown some of Ishii's "home movies" for years. Emperor Hirohito signed an order to expand Unit 731, however the order did not give a description of the unit's activities so it is unclear if Hirohito knew what the unit was.¹⁹ Because current evidence leaves room for doubt that Emperor Hirohito knew the purpose of Unit 731, it cannot be stated unequivocally that the Emperor knew of Unit 731's activities.

The experiments performed by Unit 731 were not unique and there were many other units with varying degrees of independence from Unit 731 in the Japanese military that participated. Experiments took place all across the Japanese empire, with different degrees of frequency and scope. Unit 731 was an example of large-scale, industrial experimentation with its smaller offshoots providing auxiliary support and conducting experiments of their own. These industrial level experiments included testing poison gas on prisoners, conducting field experiments with

¹⁷ Daniel Barenblatt, *A Plague Upon Humanity: The Secret Genocide of Axis Japan's Germ Warfare Operation* (New York: Harper Collins Publishers, 2004), 32-33

¹⁸ *Ibid*, 32-33.

¹⁹ *Ibid*, 37.

bubonic plague bombs, injecting horse blood into people, freezing limbs to test frostbite remedies, and many other experiments too numerous to list. Many of the experiments took place in China and Manchukuo, but also at Imperial Navy hospitals on islands across the Pacific in using POWs for experiments and as surgical practice.²⁰ Considering the secrecy of the Unit, Ishii made very little effort to hide his activities from the scientific community in Japan. Ishii and many of his top scientists frequently published their findings in Japanese scientific journals.²¹ They could not help but share what they considered the cutting edge of medical science, such as the discovery of how diseases progressed through the bodies of the infected and how certain organs reacted. In the articles, they often substituted the word monkey for human in a thinly veiled attempt to cover-up what they were doing. However, in a normal scientific paper that detailed a legitimate experiment, the proper species name of the monkey was given. Articles detailing human experiments did not provide species names. This shows the active involvement of the scientific community of Japan because so many people from the various universities around Japan participated and many volunteered or requested assignment to a research unit so they could conduct experiments that would otherwise be difficult to do in Japan.

As for the scientific community outside of Japan, it is difficult to gauge how much was known but it can be said that the rest of the world was mostly unaware of Japan's human experiment activities until World War II. Many scientists, politicians, and military strategists in the West believed that the Japanese were incapable of making any meaningful scientific advancement as the Japanese were seen as an inferior race. The Japanese wanted to maintain the secrecy of their research to keep the outside world unaware of what they were doing, because if

²⁰ Harris, 81.

²¹ Barenblatt, 70-71.

people knew Japan was preparing biological and chemical weapons, then other countries would build up defenses and weapons of their own, potentially negating any advances Japan might have made.

From 1931 until 1945, Ishii and his unit conducted their experiments along with many other units, such as Unit 100, Unit 200, Unit Ei 1644, Unit 516, and other units whose designations are still unknown. Unit 731 was one large cog in a larger machine and the human experiments they conducted were common throughout the Greater East Asia Co-Prosperity Sphere. To the Japanese military, civilians and POWs were tools to be used and discarded. The “precious human material,” as Ishii was oft to refer to them, were medical samples waiting to be harvested. Japanese companies, both in Japan and elsewhere in the Japanese empire, shared the same racist attitudes towards non-Japanese who were worked to death in forced labor operations. For Imperial Japan, the people of China and Manchukuo were there to be exploited and to serve the master Japanese race. Even Japanese were exploited. For example, it was the duty of Japanese soldiers to die for the emperor and the duty of the people of East Asia to be completely subservient to Japan. The story of Japan’s experiments is a human one, yet few Japanese soldiers, doctors, and civilians were willing to share their experiences. These interviews are some of the most important pieces of primary documentation available. They present us with depth and emotion that is hard to grasp in figures and charts, and are some of the only surviving firsthand accounts of what happened since the Japanese left almost none of their victims alive.

The story presented at the beginning of this introduction was an ordinary scenario for one military hospital and Yuasa Ken noted the ease with which the nurse smiled at a man who was about to be murdered. He comments that it was so easy for her to do this because he believed

she had done it so many times before. Ultra-nationalism provided the motivation for many of Japan's crimes, but racism provided the justification. Anything done in the name of the Emperor was good. The Japanese were the sacred Yamato race, destined to rule Asia and subjugate all non-Japanese. Under this atmosphere, it became possible to commit crimes against humanity.

The United States

The Tokyo High Command was well aware of the activities of Unit 731 and its subsidiaries, a fact that eluded one of the first American investigators after the war, Lieutenant Colonel Murray Sanders.²² However, before these investigations, the United States knew Japan had been conducting experiments with biological and chemical weapons, although the full extent of the experiments was not known. By 1946, the United States had received several reports that experiments may have been conducted on Allied prisoners of war by Unit 100 and Unit 731.²³ In 1946, a letter was sent to General Douglas MacArthur stating that experiments were conducted on three Allied prisoners of war at the Infectious Disease Research Laboratory in Tokyo.²⁴ One anonymous youth corps member, who worked at the Unit 731 subunit of Unit 200, later described his job preserving human specimens in Formalin. There were specimens of adults, children and babies, heads, organs, and entire bodies. He also recalled that they were separated by nationality and that he saw "Chinese, Russians, Koreans, Britons, Frenchmen, and Americans."²⁵ This is only one example of Americans used for experiments, as there are several court cases, which also describe the experimentation and murder of several United States

²² Harris, 181.

²³ William H. Cunliffe. *Select Documents on Japanese War Crimes and Japanese Biological Warfare, 1934-2006*. (Washington, D.C.: National Archives and Records Administration), JWC 231/10, pg 35 and JWC 2288/8a, pg 36.

²⁴ Ibid, JWC 258/18, pg 39

²⁵ Anonymous, "Youth Corps member (Anonymous)" in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 169-170.

military personnel. *USA vs. Iwanami Hiroshi et al.* and *USA vs. Asano Shimpei et al.* were part of the Class B and C war crimes tribunals, which were held in nations across the Pacific after World War II. In the case of Iwanami, he beheaded some of the Americans he was accused of murdering, boiling the heads and sending the skulls back to Tokyo as specimens for study.²⁶ Connections were not made to Unit 731 during these trials, either because of a lack of due diligence during the investigative process or because it was officially suppressed. It is now well documented by historians such as Daniel Barenblatt, William and Wallace, Sheldon Harris, and many others that the United States actively suppressed knowledge of Japan's human experiments and activities in biological warfare, particularly activities surrounding Unit 731.²⁷ This was not the first time the United States suppressed knowledge of human experiments as they had already captured many Nazi scientists and brought them back to the US to work on various projects such as the building of American rockets. Nor would the human experiments have shocked the US government as they had been conducting human experiments since 1922 and continued to do so for many years after the war.²⁸

Because of the cover-up, few who committed crimes in the name of science were prosecuted. Ishii died from cancer in 1959 and was never prosecuted for his crimes. Many other high-ranking officers in the various units went back to Japan, re-entered the university system, and played prominent roles in Japan's medical and academic community. Unlike their victims, most of these men and women went on to live full lives, and were exposed only after many years of silence or after many of the perpetrators had died of old age or were nearing the end of their

²⁶ *USA vs. Iwanami Hiroshi et al.* Navy Case 48-35-1 Part 1 (JAG, 1947)

www.fold3.com (accessed February 27, 2013). The skulls of the American's in this case were never recovered.

²⁷ Cunliffe, JWC, 257/6, 43.

²⁸ Linda Hunt, *Secret Agenda: The United States Government, Nazi Scientists, and Project Paperclip, 1945-1990* (New York: St. Martin's Press, 1991), 157.

lives. For the United States government, the emerging conflict with the Soviet Union outweighed the need for justice. The US tried very hard to keep the Soviets from gaining access to the men of Unit 731. The Soviets did capture some Unit 731 personnel who were trying to flee Manchukuo.²⁹ Many of these men stood trial in Khabarovsk Trials held in the city of Khabarovsk in the Soviet Union. At the time of the trials, the United States stated the trials were just propaganda.³⁰

Rooted in Racism

Research on Nazi Germany's crimes by other historians has been thorough and the numbers of books written about the subject are too many to list here. However, Germany's human experiments deserve to be brought to attention since they occurred at around the same time Ishii was conducting his experiments. Dr. Josef Mengele is one of the best-known criminals of Nazi Germany who conducted medical experiments on people and aided in the slaughter of millions of innocents, although his research was more concerned with scientific curiosity. Mengele used humans for his own purposes although the overriding theme of the Nazi scientific community's experiment on humans was race. For Adolf Hitler, German doctors who could provide his ideology with what were believed to be scientific facts were some of the best allies he found for who would question the word of a trained doctor. Arguments backed by science made the Nazis extremely effective at spreading their racist ideology. The Nazis understood the faith people put in science along with a pervasive prejudice against Jews in an attempt to realize their goal of exterminating people considered inferior. Racism was not a Nazi

²⁹ Harris, 317-318.

³⁰ Ibid.

phenomenon, nor was the faith placed in science unique to Germany. This atmosphere of racism had pervaded many countries in Europe, the United States and Japan since before World War I.

Japan had a racist view of non-Japanese and they used this to justify the creation of the “Greater East Asia Co-Prosperity Sphere,” a program of empire building. Under this hierarchical system, Japan would be the ruler of Asia. Like most Nazis scientists, many Unit 731 scientists were ultra-nationalists and this influenced their thinking and justification for the crimes they committed. One finds a deep lack of morality amongst many of the top scientists and those who did have reservations lost such fleeting feelings of shame as they became accustomed to murder.³¹ For the Japanese of this period, people of other races were seen as inferior. The Japanese often referred to themselves as the Yamato race, a name that originates out of a belief that a region in central Japan, known as Yamato, was the mythical birthplace of the Japanese people. Japanese racism presented itself in a different way, which can often make it hard to recognize for outsiders who are used to Western racism. The West portrayed the Japanese as monkeys or with very apelike features.³² Non-whites were viewed as animalistic, and the darker one’s skin was the more primitive the people were. Just as the West viewed it as their burden to civilize other cultures, so too did the Japanese viewed it necessary to civilize other Asians by introducing Japanese culture and language.

The Japanese took a different approach in their ideas of racism. Their notion was in some ways more subtle, with non-Japanese described as unclean or impure, often in a spiritual sense. The Japanese viewed themselves as being above other Asians who constituted the vast majority of their victims from 1931 to 1945. These notions of uncleanness worked themselves

³¹Yuasa, 210.

³²Dower, 77.

into the Japanese language through religion and in the Japanese creation myths. Many Japanese at the time believed the gods created the Yamato race and therefore divine.³³ This meant that purity was defined by the color of one's soul and not skin color. Red represented life and the soul, and the color of the Japanese soul was red.³⁴ The shedding of blood was therefore a way to purge oneself of corruption. This kind of rhetoric was nearly impossible to escape as its symbolism was imbedded in the Japanese language, with words like "*sekisei*" (sincerity), literally meaning "red truth," (the ideograph for red being, *seki*).³⁵ The Japanese flag is a red sun upon a white background, the white representing purity and the red sun being the Japanese people.³⁶ It is not the blunt racism of the West where the animalistic nature of the "other" dominated the rhetoric. It was a more subtle sort of racism, where the "other" was a person who existed within a divinely codified existence of subservience and only the restoration of what was viewed as the natural social order could bring peace and harmony.

Conclusion

Unit 731 and Ishii Shiro were instrumental to Japan's biological warfare research program, but so were the other units, which conducted experiments separate from Ishii, some more independent than others did. Universities were vital to the research efforts of every biological warfare research unit, they supplied the scientists and the knowledge, and many of those scientists were not part of the military but civilian employees who worked for the military. Many volunteered to go to an Ishii unit in the hopes it would further their career or allow for research that was not as easy to do in Japan. While not as common as in Manchukuo and China,

³³ Dower, 217.

³⁴ Ibid, 210

³⁵ Ibid, 211.

³⁶ Ibid.

some experiments were conducted in Japan. There are at least three known cases of human experiments conducted in Japan and there were likely more that are unknown. Specimens taken from the murdered victims of experiments were regularly sent back to Japan where many have remained since the war, buried or disposed of in some other way. Videos of experiments were shown at the universities to students and those same students were taught that medicine was a weapon to be used by Japan in its quest for empire.

Unit 731 and Ishii existed within the larger context of Imperial Japan's war machine. It included many facets of society from universities, laboratories, and civilian scientists along with the many other biological and chemical weapons military research units, pharmaceutical companies and military hospitals across the Japanese Empire participating in human experimentation and exploitation. The crimes were committed in an environment of pervasive racism towards non-Japanese in the belief that the Yamato race was the rightful rulers of Asia. Each race served a specific function and only when everyone was in his or her designated place under Japanese rule could there be harmony. Japan's human experiments from 1931 to 1945 must be placed within the full context of Imperial Japan's ultra-nationalist movement of the early 20th century. Proving the motivations of each individual scientist is impossible, but it is possible to highlight the racist philosophy under which they operated. This philosophy spurred the scientists to develop weapons to help the nation succeed in its goal of conquering Asia. Biological weapons can be powerful for the lives they can take and the fear they can instill. Combine this desire with a lack of sympathy for people considered non-human and the results are plain to see in the stories of the victims of the human experiments. What drove many

Japanese scientists to conduct human experiments was the racist ideology of the ultra-nationalist movement in Japan.

II. HISTORIOGRAPHY

The history of the criminal human experimentation committed by the Japanese in China and Manchukuo is short and understudied compared to other histories, nor is it an easy subject to study as much of the evidence has been destroyed, lost, or hidden. It was not until relatively recently that many of the documents the United States government had compiled on the subject became declassified. In the post war years, these crimes were forgotten as the American government covered up what the Japanese did in order to secure any important scientific data Japan held. Peter Williams and David Wallace, two journalists, conducted one of the first non-governmental investigations into Japan's human experiment activities after a Japanese student at Keio University discovered a box containing documents detailing a human experiment.³⁷ They first made a televised documentary, which shocked the world by exposing what the Japanese had done. After the TV documentary, they wrote a book about the experiments and subsequent cover-up. Their book focused almost exclusively on Ishii Shiro and Unit 731, and the cover-up by the United States and Japan, which followed the war. Its place in the historiography is as one of the first works about Japan's human experiments in the West and its importance is the exposure it gave to the subject. Japan's human experiment activities was a subject familiar to the Chinese, but was a topic covered up and ignored by those in the West. Before any historian could delve into the details of the activities, the mindset of the perpetrators, the reasons men and women were capable of committing such atrocities, and the other debates and activities which historians carry out, it was first necessary to simply figure out what happened and on what scale the activities of Unit 731 were carried out. Williams and Wallace started this process and

³⁷ Williams and Wallace, 3-4.

opened the door for later historians to truly put Japan's human experiment activities under the rigor of professional historical scrutiny.

The historian Sheldon Harris took the investigation further and gave it the methodical treatment of a historian. His work was some of the most important and groundbreaking in this particular field because of the depth of his study and the exposure he gave to the broader network of research facilities. He exposed the West to the discovery made by the Chinese scholar Han Xiao of the facility at Beiyinhe and showed it was some of the earliest work done by Ishii on humans.³⁸ This confirmed to scholars in the west that the Japanese began experiments almost immediately after entering Manchukuo.³⁹ Harris also brought Unit 100 and Unit Ei 1640 into the spotlight. Other units were discussed in his work, *Factories of Death*, a book that remains one of the most comprehensive and important studies on the subject. In 1993 and 1994, the Unit 731 Exhibition traveled around Japan with the purpose of educating the public on what had been done and collecting interviews of people who participated in or had knowledge of the crimes of Unit 731. Hal Gold collected these interviews into his book, *Unit 731: Testimony*.⁴⁰ These interviews are a stark, harsh and brutal example of the crimes carried out. Often in a very matter-of-fact way, they describe the brutal deaths of many innocent people. They are also a reminder that the men who were in charge of and committed these crimes went unpunished. The cover-up which followed the war did not completely hide what had happened. It was effective in suppressing discussion in the United States but it did not keep researchers in China and Japan from discovering what had happened.

³⁸ Harris, 37. Many works from China and Japan used by Sheldon Harris and Daniel Barenblatt have not been translated and so are out of reach of this researcher. Other authors have been able to read them in either the language in which they were written or through specially obtained translated copies.

³⁹ Ibid.

⁴⁰ Gold, 147-149.

Sheldon Harris acquired an English translation of *The Bacteriological Warfare Unit and the Suicide of Two Physicians*, by Tsuneishi Kei'ichi and Asano Tomizo published in 1982. Harris relied on Tsuneishi and Asano's book throughout his work.⁴¹ Another important yet somewhat controversial work was *The Devil's Gluttony*, by Morimura Seiichi.⁴² Morimura's book was one of fiction based on extensive research, but Harris hinted that Morimura's book had some factual errors in.⁴³ Morimura's work was important for opening discussion in Japan during the 1980s because it forced the Japanese government to admit for the first time that Unit 731 existed. Tsuneishi Kei'ichi also wrote another book called *The Germ Warfare Unit That Disappeared*.⁴⁴ Harris made use of this book because he was able to obtain a special translated copy from Mr. Norman Covert.⁴⁵ There are also books written in Chinese that were unobtainable, including one called *Unit 731: Japanese germ warfare Unit in China* (侵华日军关东军七三一细菌部队). These works represent an important aspect of the historiography that unfortunately cannot be delved into here because translated versions could not be obtained. It is important to remember that these works exist and have greatly influenced the study of Japan's human experiments in the West and many of the advances made in the United States on this subject owe their existence to these seminal works of history.

John Ellis van Courtland Moon's article, "Chemical Weapons and Deterrence: The World War II Experience," largely deals with the study of chemical weapons. The article was written during the Cold War when the threat of World War III was a real possibility. Conventional

⁴¹ Harris, 11.

⁴² Ibid, 155.

⁴³ Ibid, 155.

⁴⁴ Ibid, 11.

⁴⁵ Ibid, 242.

wisdom stated that World War III would be fought with nuclear weapons, but Moon saw a different future. For this, he looks at World War II. Moon states that many believed World War II would open with or devolve into the indiscriminate use of chemical weapons on a massive scale.⁴⁶ Chemical weapons were used extensively on Chinese soldiers and civilians, but were not used on a large scale against major combatants, such as the United States, at any time during the war. Moon's article seeks to explain why such weapons did not see use, even in the closing days of the war. During the early part of the World War II, the initiative was with the Axis powers. Germany was rolling across Western Europe and the Japanese were making very quick gains in the Pacific, achieving many early victories against the United States and her allies. Such gains would only be hampered by the use of chemical weapons or biological weapons. Neither of these unconventional weapons discerns between friend and foe, and has the potential to linger in an area for days, weeks and months. The German blitzkrieg moved too fast to make this effective and Japan was advancing rapidly from island to island, crushing most resistance quickly and ruthlessly. Another reason was the overestimation of the capabilities of the Allied powers' chemical weapons capabilities. Japan and Germany both believed that if they used chemical weapons, retaliation would be swift and profound. For Germany, the use of chemical weapons had another side. Moon points out that Hitler was wounded in a gas attack during World War I and this may explain his opposition to its use throughout World War II.⁴⁷ The German high command was also strongly opposed to its use except in retaliation. Most of those in the German government who strongly advocated chemical weapons use were ideologues such

⁴⁶ John Ellis van Courtland Moon. "Chemical Weapons and Deterrence: The World War II Experience." *International Security*, Vol. 8, No. 4 (Spring, 1984): 34.

⁴⁷ *Ibid*, 25.

as Robert Ley, Martin Bormann, and Joseph Goebbels.⁴⁸ The Germans had reasons that are more practical as well. As previously stated, the use of chemical weapons during blitzkrieg would have only hindered the advance of German forces, and by the time the Germans might have been tempted to use chemical weapons out of desperation in the closing days of the war it was too late for such weapons to make a difference. Later in the war, Germany lost its air superiority and would have been at the mercy of Allied reprisal and the destruction of German industrial centers made manufacture of the necessary agents and components for delivery difficult at best.⁴⁹

Japan had not developed its chemical weapons program to the extent that the Germans had or to the extent it needed for sustained operations, though the Japanese had used them against the Chinese to great effect because the Chinese had little defense against chemical weapons and no way to retaliate in kind. The Japanese also lost their air superiority later in the war and would have been at the mercy of Allied reprisal. However, Moon believes the command to use chemical and biological weapons would have come from a group called the *choken shoko*, which was composed of executive military officers who anonymously made decisions on a consensus basis.⁵⁰ General Tojo tried to tell allied investigators that the decision to use or not use chemical weapons was his own to make, but this was unlikely. More likely, it was the fact that Japan's intelligence community was convinced that America would not use chemical weapons except in retaliation and they also recognized America's superiority in chemical weapons. They did not wish to give the United States an excuse to use such weapons.⁵¹ The

⁴⁸ van Courtland Moon, 26.

⁴⁹ Ibid, 28

⁵⁰ Ibid, 29.

⁵¹ Ibid, 29-30.

United States did not use chemical weapons because of strong public opinion against it and out of fear of reprisal on population centers, particularly in Britain. Its potential did tempt military planners who saw how effective it might be for rooting the fanatical Japanese warriors out of their caves after it was seen how deadly effective the Japanese were when dug into strong positions exemplified by the battles of Iwo Jima, Tarawa, and Okinawa. Moon's study of motivation is an important one for understanding why World War II did not turn into a "chemical weapons apocalypse."⁵²

Peter Williams and David Wallace wrote *Unit 731: Japan's Secret Biological Warfare in World War II* after a televised investigation into the activities of Unit 731. As the authors stated, their book was not a continuation in written format of their televised documentary but a much more thorough investigation into how much the United States knew about Unit 731 and its subsequent cover up of Unit 731 and Unit 100's activities. It is also an important exposé on the activities of Unit 731, as many people in the West were completely unaware that the unit existed. There was little to no work done on Unit 731 by Western historians prior to Williams and Wallace, and their book was the beginning of the historiographical process in US and Europe. The book begins with a discussion on what sort of experiments these units carried out and the attempt to weaponize biology, followed by what the Allies knew of these activities. Ishii and his men fooled initial investigators, such as Lieutenant Colonel Murray Sanders.

Unit 731: Japan's Secret Biological Warfare in World War II is not simply about a United States cover-up, but suggests that almost every Allied country was aware of the experiments Japan had been conducting in Manchukuo and that some experiments may have

⁵² van Courtland Moon, 29-30.

involved Allied personnel as experimental material. The book shows MacArthur was privy to information about these investigations and it is clear that he ordered evidence of human experiments kept quiet and that the men responsible should not be tried.⁵³ The book also suggests that the reason the Soviet Union was so determined to convict war criminals for biological weapons experiments was that it was trying to cover up its own human experiment activities.⁵⁴ The last part of the book ends with a discussion of the consequences that followed during the Korean War and the wider Cold War. The book examines the similarities between the way German war criminals were not prosecuted and the way Japanese war criminals were prosecuted (or not prosecuted). This was important for later historical works because it highlighted that the United States was interested in protecting German and Japanese scientists in the hopes of gaining useful information. The authors failed to realize many Nazi scientists were given immunity similar to the Japanese scientists. This book was one of the earliest full-length public investigations into Japan's biological weapons and chemical weapons programs written in English. What it brought to the field was a wealth of sources unknown to Western historians, many derived from United States government documents previously unavailable. The book is an exposé, not a work that addresses other historians. Its place in Western historiography is that it sparked interest in a topic, which was ignored, or unknown for many years after World War II.

Sheldon Harris' book *Factories of Death: Japanese Biological Warfare in 1932 – 45 and the American Cover-up*, takes a much closer focus on Ishii Shiro. Harris presents Ishii as the driving force behind Japan's biological weapons research, which really formed into a recognizable program in 1932. Ishii was portrayed as a charismatic and highly intelligent

⁵³ Williams and Wallace, 138.

⁵⁴ Ibid, 230-32.

individual who was able to use his powerful personality to get the funding he needed in order to conduct biological weapons research. Ishii is also labeled the mastermind behind Japan's biological weapons program. Others were involved and Harris makes it clear that Ishii could not have had the money to fund his experiments and build his facilities without the help of powerful people in the Tokyo High Command. It was Ishii's personality, which enabled him to gain access to these people and convince them that biological warfare was worth researching. His Ping Fan facility was his crowning achievement and could not have been built without massive amounts of money. His budget in 1936 was an annual sum of ten million yen and possibly more.⁵⁵ Harris states that generals commanding several army divisions were not receiving as much while Ishii was merely a Lieutenant Colonel at the time he secured this budget.⁵⁶ Ishii was also tied to the very powerful nationalist movement within the Japanese officer corps. Ishii was described as vehement nationalist and this, along with his personality, helped him gain access to the people who could provide him funds. Harris presents some new material, such as the first examination of the facility at Beiyinhe where Ishii conducted his first human experimentation. Beiyinhe was the early prototype for Ping Fan.⁵⁷

As the book's title suggests, *Factories of Death* is about the various facilities where experiments were carried out, so Harris also looks at Unit 100 and its facility at Changchun and the facility at Nanking. This is important as Harris presents Manchukuo as one giant testing ground for biological weapons activity. He also discusses testing carried out in other parts of China. This assertion was supported by Hal Gold's book where one soldier describes becoming

⁵⁵ Harris, 39.

⁵⁶ Ibid, 39.

⁵⁷ Ibid, 30.

aware that biological weapons attacks were being quietly carried out on villages across China. One of the units Harris talks about that had not received much attention prior to his work was Unit 100. Unit 100 was a semi-autonomous unit under Unit 731, which was based near Changchun, a large city much like Harbin, in a suburb known as Mokotan. The unit was led by Major Wakamatsu Yujiro, an obscure veterinarian who eventually rose to the rank of Major General in the Kwantung Army Veterinary Service.⁵⁸ While the bulk of testing done at Unit 100 was geared toward biological weapons against animals and crops, the unit also conducted experiments on thousands of people. The exact number of people killed is unknown. Farmers in the area later reported discovering human corpses, near the Unit 100 headquarters, in a five hundred meter long area that was at least two to five meters deep. Estimates from this discovery do not count the number of people burned in the facility's incinerator. Unlike Unit 731, at least one report from a non-Japanese is available despite access being severely limited. One boy, Li Ye Guang, who was going to graduate from an Army supply school in Changchun, was taken to the camp with his classmates as part of a field trip to study different army operations.⁵⁹ Here they were shown some of the facility's experiments on animals, such as a demonstration on a horse that was killed from an unknown injection. Unit 100 also conducted field tests near Changchun and when the unit had to flee at the end of the war, they released plague, glanders, and anthrax into the surrounding areas. This last act caused at least three major outbreaks in 1946, 1947, and 1951, and left some areas uninhabitable until the mid-1950s.⁶⁰ Li Ye Guang's report is one of the only from non-Japanese known to exist concerning Japan's human experiments.

⁵⁸ Harris, 85.

⁵⁹ Ibid, 90.

⁶⁰ Ibid, 100.

Harris deals little with historiography. He does use books from Japanese and Chinese historians, but these are as source material and do not provide an account of historiographical progress.

Harris' book is one of the first major works by a Western historian and he deals little with historiography. As with Williams and Wallace's book, Harris' book was more shedding light on a little known event.

Hal Gold's *Unit 731: Testimony* is perhaps most important for the first-hand testimonies that makes up about half his book. He examines the consequences of Unit 731's actions and discusses what became of many of the scientists and participants, something Williams and Wallace had not done in detail and something Harris did not cover in depth either. Gold provides a list of men who worked for Unit 731 and other units, what they did during the war and what they did after the war. Some of these scientists were very successful after the war, like three Unit 731 men who founded the Green Cross, a pharmaceutical company. They were Naito Ryoichi, who worked on bacteriological research, Kitano Masaji, who conducted frostbite research, and Futagi Hideo, who was a vivisection team leader.⁶¹ All three men were active in human experiments and all three participated in vivisections. The most revealing evidence given in the book and the biggest contribution to the historiography are the personal accounts given by people who were actually working within the various biological/chemical weapons units. Some of the testimony was from soldiers who guarded Ping Fan, doctor's assistants, several nurses, and Ishii Shiro's driver who recounts having to run over people with a truck because they were

⁶¹ Gold, 142-143.

trying to escape a field test.⁶² It is evident from the testimonies that experimentation was not the only way people were killed by Unit 731 because some were murdered for fun.

One member of the Japanese Youth Corp, an organization comparable to the Hitler Youth, who worked for Unit 731 claimed to have worked in the section where specimens were preserved, sometimes whole human bodies were preserved and other times just parts. The nationality, sex, age, and date and time of death were labeled on specimens of complete bodies. This member, who preferred to remain anonymous, states that not only were Chinese, Russians, and Koreans present, but also Americans, Britons, and Frenchmen.⁶³ Included among the individuals preserved were children and babies.⁶⁴ In a way, Unit 731 was involved with other seemingly unrelated tasks as well. The anonymous Youth Corp member also claims that kamikaze pilots departing on suicide missions drank *saké* (rice wine) laced with a stimulant developed by Unit 731. Another account given is a bit different because it is actually a lecture given by Nishino Rumiko, who was an important researcher of comfort women. Comfort women were women used by the Japanese military as unwilling prostitutes. In this lecture, she describes interviews done with personnel from Unit 731. Previous works do not mention Unit 731 experiments involving comfort women, and the research and experiments the unit did on venereal diseases. One example of such an experiment was where they forced an individual with syphilis to have sex with someone who did not. This was usually done at gunpoint and for infecting the person for study because it was found that injecting syphilis was ineffective for

⁶² Koshi Sadao, "Ishii Shiro's driver (Koshi Sadao)" in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 242-243.

⁶³ Anonymous, "Youth Corps Member (Anonymous)" in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 169-170.

⁶⁴ *Ibid.*

research and that the best way to study it was if the disease was contracted “naturally.”⁶⁵

Technicians and doctors from the unit were also charged with giving comfort women venereal disease examinations and this is corroborated by the anonymous Youth Corp member who participated in the examinations. Gold’s list of personal accounts is extremely important as they are eyewitness testimonies that can be used to back up other research, which was not available to other historians in the quantities Gold was able to collect them thanks to the Unit 731 Exhibition.⁶⁶ The firsthand accounts of the aforementioned individuals will be very important for this research paper as they can be used to confirm previous research and evidence found within other documents. They provide details, which are often lacking from more “official” sources, especially considering that there are few Chinese eyewitnesses because most were killed. Gold’s book is centered on the interviews he compiled and only gives a cursory examination of Unit 731 in contrast to Harris’ work, which is very detailed. Gold does not provide any discussion of previous historians but seeks to separate itself by providing a wealth of first-person accounts. This makes the book more important as a source than as a corpus of historiographical change.

A Plague Upon Humanity, by Daniel Barenblatt, can be seen as a continuation of Harris’ and Gold’s work. However, Barenblatt’s work draws some sharper conclusions about Unit 731 than many other books before it. Barenblatt makes a much stronger case for the Emperor’s knowledge of Ishii’s human experiments. Such evidence includes Prince Takeda, the Emperor’s cousin, and Prince Mikasa, the Emperor’s youngest brother being shown films of bubonic plague

⁶⁵ Nishino Rumiko, “Lecture, ‘Unit 731 and Comfort Women’” in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 159-161.

⁶⁶ Gold, 147.

bombs being loaded onto planes and dropped on Chinese civilian centers. Barenblatt also states that Prince Mikasa wrote in his memoirs that he was shown “films where large numbers of Chinese prisoners of war brought by cargo trains were made to march on the Manchurian plain for poison gas experimentation.”⁶⁷ Tojo Hideki had knowledge of the experiments as he was shown films Ishii made of the experiments. After watching the films for several years, Tojo began to find them “unpleasant,” and stopped watching them.⁶⁸ Further support for the Emperor’s knowledge of the unit is the fact that the Emperor authorized the expansion and official integration into the Kwantung Army of Unit 731, also known as the Togo Unit, in 1936.⁶⁹ The final piece of evidence presented by Barenblatt is that Emperor Hirohito was a biologist, who wrote peer reviewed scientific papers on sea slugs. Sea slugs seem a far cry from human experimentation but as Barenblatt states, it would seem highly unusual that the Emperor was kept in the dark about Unit 731’s activities.⁷⁰ The evidence presented to prove Hirohito’s involvement is circumstantial at best and therefore does not constitute proof.

A Plague Upon Humanity is also a book about accountability. This is the major theme throughout Barenblatt’s book. This separates it from *Factories of Death*, which largely tries to explain the magnitude of what happened. Barenblatt seeks to not just provide an account of events, but to put blame on the shoulders of all those involved. It is through culpability that he engages previous works from Harris, Gold, and others. He presents a new context from which to examine the subject by trying to identify all the responsible parties. Where his work falls short is providing the proper context of the rise of racism and the pseudo-science of eugenics in the early

⁶⁷ Daniel Barenblatt, *A Plague Upon Humanity: The Secret Genocide of Axis Japan’s Germ Warfare Operation* (New York: Harper Collins Publishers, 2004), 32-33.

⁶⁸ Ibid.

⁶⁹ Ibid, 37.

⁷⁰ Ibid, 41.

20th century and how powerful an influence such ideologies had on otherwise normal individuals. Many of these men were brought up in a society, which viewed Japan as the rightful rulers of Asia and believed in the concept of an East Asia Co-Prosperty Sphere of which the Japanese would be at the top. Any actions taken to further this goal or any actions taken against those considered lesser were therefore morally acceptable and naturally correct with everyone in their “proper place.”⁷¹

Japan's Wartime Medical Atrocities: Comparative inquiries in science, history, and ethics, edited by Arthur Kleinman, Jing-Bao Nie, and Mark Selden, was compiled from many different authors and has been included last in this list because it takes a sharp turn from the rest of the books discussed here. In some ways, it is perhaps the most groundbreaking of all the books in that it forces one to take in the entirety of Japan's human experiments. Other books have presented Unit 731 and Ishii Shiro as the main perpetrators of human experiments, with other, smaller, units participating in support of the main operation at Ping Fan. Kleinman, Nie, and Selden show in their compendium that Unit 731 was just a large cog in a much larger machine of human suffering and the crimes extended well beyond the military sphere and into the civilian and academic sphere. They also try to explain the motivations of the scientists who participated. Some scientists sought recognition or simply wanted to do things they had never been allowed before and this led them to willingly seek out Ishii and the other units. Universities hosted the lectures Ishii gave, they sent resources and scientists, and they received specimens and provided a platform for Ishii to present his studies. Experiments were not limited to the Imperial Army but were also performed by the Imperial Navy and not just on civilians, but on POWs, a

⁷¹ Dower, 266.

practice that was likely fairly common considering the ease with which they were performed by two separate officers on different occasions.⁷² Along with these revelations are the discussions of the involvement of pharmaceutical companies who requested and received body parts, organs, and other human samples, which were taken from POWs and civilians by the Japanese army and navy to be shipped back to Japan. *Japan's Wartime Medical Atrocities: Comparative inquiries in science, history, and ethics* provides a major historiographical switch from trying to explain what happened to trying to explain why it happened.

One of the major themes in the historiography of Japan's human experiments in China is culpability. This was a natural progression, as justice was never fully served for those responsible for some of the most reprehensible crimes of World War II. Thousands upon thousands died in experiments carried out by men who were not held responsible. It therefore became more necessary to point out the crimes of these men. Ishii Shiro died in 1959 of cancer, but other men such as Kitano Masaji, Futagi Hideo, and Naito Ryoichi went on to become prominent members of society. Hal Gold lists at least nineteen men who were important participants in the human experiments at the various units across China and who later became prominent members of society. Not all of these people belonged to the military, some of them were civilian personnel who worked for the military research units, such as Amitani Shogo who helped the Ishii units by working at Tokyo University Laboratory for Communicable Diseases and remained at this post after the war and he eventually received the Asahi Prize "for outstanding scientific performance."⁷³ Another man, Tanaka Hideo, worked with the team who

⁷² Arthur Kleinman, Jing-Bao Nie and Mark Selden, ed., *Japan's Wartime Medical Atrocities: Comparative inquiries in science, history, and ethics*. (New York: Routledge, 2010), 36-38.

⁷³ Gold, 142.

conducted research on plague-carrying fleas which were considered one of the most effective means of infection and with which many human experiments were conducted. He went on to be dean of the faculty of medicine at Osaka City University.⁷⁴

How far up the chain of command, the blame for what happened goes has been one of the great debates in the field. Harris makes a compelling case that certain members within the Tokyo High Command had direct knowledge of what was going on, for it was inconceivable to imagine that Ishii could have secured all the funding, equipment, and academic connections without support. There is also some evidence that Emperor Hirohito knew what was going on. There are connections between the Ishii units and at least one member of the imperial family, Takeda no Miya, who was an imperial prince and cousin of Emperor Hirohito, having been present at testing, as well as the fact that he controlled the funds for the Kwantung Army and therefore, the Ishii units.⁷⁵ Barenblatt puts the blame on the entire command structure of the Japanese army, but what is known, as historians like Harris have pointed out, was that Ishii was the main man in charge of a vast network of biological and chemical weapons research. He was the commander of Unit 731 and overall coordinator of the activities of nearly all the biological weapons research facilities. However, as Harris so deftly points out, there were many besides Unit 731, such as Unit 100 and Unit Ei 1644, along with the original facility at Beiyinhe and other small facilities elsewhere. There was also a facility in Nanking and some research was carried out at Tokyo University and Kyoto University. Some units were more autonomous of Ishii than others, while some of the naval hospitals, where experiments were conducted or practice surgeries perpetrated, were part of the network in the broader context of using people as

⁷⁴ Gold, 143.

⁷⁵ Ibid, 168.

scientific commodities. The exact number of units, which operated under Ishii, is still unclear. Many were small and obscure subunits, like Unit 200. Historians like Harris and Barenblatt agree there were probably more biological warfare research units, but they may have been small and gone unnoticed or records of their existence was lost or destroyed at the end of the war.

What many of these works lack or do not carry out to the fullest extent possible is placing the actions of these scientists within the context of the racist attitudes of the time. The Japanese were influenced just as heavily by the pseudo-science of eugenics as Western nations and combined it with their own creation myths, which stated that Japan was created by the goddess, Amaterasu.⁷⁶ The scientific theory of evolution did not seem to present a conflict with the mythos of Japan's founding though most scientists in Japan recognized that the Japanese were originally a mixture of peoples collected together on the Japanese islands.⁷⁷ To many of these scientists, a person's superiority was not determined by the color of one's skin but the purity of the soul. The historian John W. Dower discusses the racist attitudes of Japan and the United States during the World War II in his book, *War Without Mercy: Race and Power in the Pacific War*. While he does not deal specifically with Unit 731 or Japan's human experiments, his work is vital for placing this topic within the historiographical context of racism in the early 20th century, which was pushed by the ultra-nationalist movement in Japan. Dower describes Japan's version of racism as being more subtle than its Western counterpart but no less insidious or influential.

It is important to remember that the biological warfare research units were not only in the business of biological weapons development and testing, they also conducted other tests. The

⁷⁶ Dower, 217.

⁷⁷ Ibid.

Ishii units regularly conducted experiments with poison gas agents, delivery systems for the biological agents they worked with, and other experiments, which do not really fall into a single category, such as experiments with electricity and studying decapitation. Frostbite research was an important area of research at Ping Fan with the military application of trying to prevent and cure frostbite. It was quite common to freeze the body parts of living people and then try to thaw them out. For this purpose, an entire building was erected at Ping Fan to do frostbite research. Nor were biological and chemical weapons to be used specifically against people, they were also planned to be used on animals and crops, this being the focus of Unit 100. Actual testimony from people who conducted these experiments or participated in other ways is lacking from Harris' work. Hal Gold dealt with this aspect by compiling many interviews from the Unit 731 Exhibition that traveled Japan in the 1990s. This makes Gold's work invaluable from a historical perspective and fills a large hole in Harris' work. Taken as a collective, each historian's contributions provide an excellent understanding of the scale of the activities of Unit 731 and units like it. They demonstrate how the academic sphere in Japan worked with the military in the attempt to accomplish the goals of the state. The actions of the scientists were motivated by the needs of the nation and justified by the racist atmosphere of the period.

III. THE MACHINE: ULTRA-NATIONALISM AND RACISM

Ultra-Nationalism

When examining Japan's crimes in China and elsewhere across Asia, the individual crimes are nearly beyond count. Figures of the victims and victimizers are often educated guesses at best and exact numbers will never truly be known. The motivation of every Japanese war criminal will never be determined. However, it is necessary to point out the ideology, which many of the perpetrators adhered to. Many Japanese soldiers, officers, and scientists, like Ishii Shiro, were ardent ultra-nationalists who firmly believed Japan should be the leading country and the Japanese people's rightful position was at the top of a racial hierarchy. This ideology is similar to the racist dogma of the Nazis. For the Nazis, the goal was the building of the Third Reich, whereby the German people would rule over Europe. For the Imperial Japanese government, the goal was the creation of the Greater East Asia Co-Prosperity Sphere, whereby the Japanese would rule over Asia. Any means necessary to meet these goals were deemed appropriate. The war ended in defeat for Japan and Germany, but in the aftermath, there was punishment to deliver. The Allied nations held war-crimes trials at Nuremburg and Tokyo, and at the trials in Tokyo, many of the nation's top leaders during the war years, like former Prime Minister Hideki Tojo, were convicted and punished, paying for their crimes with their lives. When it came to Japan's human experiment criminals, immunity and secrecy were the order of the day. Of those in the Tokyo high command convicted of war crimes, none of these crimes was related to biological and chemical warfare. As per the surrender agreement after the war, Emperor Hirohito was not held responsible for the actions of his nation during the war. He was

allowed to continue as emperor on the condition he be relegated to being a symbolic monarch with no political power.

After convincing the high command that biological weapons were worth researching, Ishii received permission and funding from the Kwantung Army to start the Beiyinhe facility near Harbin. He had a small facility in Harbin, which he deemed too busy a city for anything but defensive research on vaccines and so he built an offensive research facility at Beiyinhe in 1931.⁷⁸ Ishii did this because he was very concerned about security, as the activities of the Ishii units were considered top-secret and having an offensive research in a city of any kind, but especially a city like Harbin with its high population of westerners, posed too much risk of discovery. It was at Beiyinhe that Ishii conducted some of his first human experiments. Beiyinhe proved to be too small for what Ishii had planned and so the facility at Ping Fan was built in 1936 and operated until the end of the war. It is unknown how many people died at these two facilities but the numbers are likely in the tens of thousands or more. Around the same time, many other units were built across Manchukuo, China and other locations in the Japanese empire.

Throughout his years as an officer often made use of his connections with fellow ultra-nationalists in the Tokyo High Command to secure funding.⁷⁹ He also traveled to Kyoto Imperial University every year to give a lecture on “How Physicians Could Help the Military.”⁸⁰ Under the same principles of “proper place,” soldiers fought with guns and doctors fought with science. Ishii pushed for more research in the field of biological warfare and for funding of his biological warfare research projects for which his ultra-nationalist connections became very

⁷⁸ Gold, 30-31.

⁷⁹ Harris, 18.

⁸⁰ Ibid, 19.

important.⁸¹ He firmly believed that biological weapons could make Japan strong. His powerful sense of nationalism drove him and many other scientists to develop weapons of science, which could tilt the balance of power in the world in Japan's favor. Ishii was a believer in a very aggressive and expansionist variety of nationalism known as *kokka banno shugi*, which literally translates to "nation-almighty-ism."⁸² In this case, *shugi* means "ism," but if one takes the literal meaning of its kanji, or Chinese characters, a step further, which are 主義, it contains the characters for "chief" or "master" in the first character (主) and "honor," "loyalty," or "righteousness" in the second character (義). The basic meaning of the phrase's ideographs can imply unity as a nation with superiority and righteousness. The devotees of Japan's ultra-nationalist movement used the slogan "the one hundred million" to describe the unity of the Japanese people. This phrase was often used in slogans like "One hundred million advancing like a ball of flame."⁸³ It implied that the Japanese were many in body but one in spirit and that the "one hundred million" had one goal under one emperor.⁸⁴ Ultra-nationalism was not a monolithic structure in Japan. There were many different factions vying for power and influence but they held similar viewpoints. The emperor was a living-god, and they used the principles of bushido to express their ideals of sacrifice and loyalty. Bushido was the code of conduct, sometimes compared loosely to chivalry in Europe, used to govern the actions of the ruling samurai class in Tokugawa Japan. The nationalists in Japan twisted bushido to rally the population to war. The government used bushido's code of self-sacrifice to justify their use of

⁸¹ Harris, 18-19.

⁸² Hilary Conroy, "Japanese Nationalism and Expansionism," *The American Historical Review*, Vol. 60, No. 4 (Jul., 1955): 820.

⁸³ Dower, 215.

⁸⁴ *Ibid.*

the infamous “kamikaze” units whose purpose was to fly their warplanes into American ships. It was the pinnacle of duty and honor to die for the Emperor.⁸⁵ The emperor’s symbol, the cherry blossom, was used as a powerful representation of sacrifice because its color was pink which represented the mixing of red blood and white purity. The cherry blossom was often an important visual icon in patriotic songs and poems. It was also used to name the MXY-8 Ohka (cherry blossom), which was a rocket propelled, human guided flying bomb used to attack American ships on suicide missions in the final months of the war.⁸⁶

The Racism of the Military Machine

The racist beliefs of the scientists provided justification to their actions. They felt it was their right as the master race to conduct whatever experiments they felt was necessary in pursuit of Japan’s national goal of creating the Greater East Asia Co-Prosperity Sphere. The scientists under Ishii believed their biological weapons could be the key to Japan’s victory and that it was Japan’s rightful place to be masters over science as well as people. Ishii has received so much attention because he was one the most charismatic and interesting of the people who conducted experiments, but he was not the only one. The people who were test subjects were most often Chinese or Manchurian. Japanese ultra-nationalism stated every group or race of people had a “proper place” in the world order, which was defined by a mix of nature and divinity.⁸⁷ The Japanese referred to themselves as the Yamato race, and the ultra-nationalists taught that the proper place for their people was at the top with all others below.⁸⁸ Captain Kojima Takeo, of the Imperial Army, expressed the “proper place” line of thinking well when he said, “We were

⁸⁵ Dower, 214-215.

⁸⁶ Ibid, 212.

⁸⁷ Ibid, 266.

⁸⁸ Ibid, 266

taught that Japan is a sacred country, that the people of Japan are a superior race, that the people of China, Korea, Southeast Asia, and Russia were all inferior races, and the superior race must govern them. And by doing so, we would bring them happiness.”⁸⁹ It was not one’s place to question one’s superiors in a society built on these principles and the same would have been true then of every race beneath the Japanese. Captain Kojima goes on to describe how captured Chinese were used as bayonet practice and states this was standard in the Japanese army, so he too ordered his soldiers to practice in this way.⁹⁰

Nanyan Guo is one of the historians presented in *Japan’s Wartime Medical Atrocities: Comparative inquiries in science, history, and ethics*, “Discovering traces of humanity: Taking individual responsibility for medical atrocities.” Nanyan Guo provides what is probably one of the best reflections on individual responsibility for this subject. Nanyan Guo attempts to answer the question of what could motivate an otherwise normal person to commit acts of extreme barbarity. Guo presents the reader with five people who participated in experiments. These five attempted to justify their crimes and expressed feelings of pride in their work at Unit 731. One such person, named Hiyama, stated “There is nothing shameful in what I did at Unit 731...The Soviet Union was also conducting research into germ weapons...I was doing this for Japan, and I am not ashamed at all of what I did.”⁹¹ Another states, “We believed that the war was conducted in order to bring wealth to Japan, which was a poor country in those days, and to bring peace to Asia... therefore we believed that *maruta* were not human beings. They were even lower than animals... No one in Unit 731 ever had any sympathy for them. To all of us, they deserved to

⁸⁹ Kojima Takeo, “Captain, Japanese Imperial Army (Kojima Takeo)” in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 245-246.

⁹⁰ Ibid.

⁹¹ Kleinman, Nie, Selden, 109.

die.”⁹² Other interviewees also commonly used the word *maruta*, which means log. The word itself is indicative of the dehumanization of the victims and came into use because the local Chinese were told Ping Fan was a logging camp. Terms like *maruta* served to cement the idea that non-Japanese were little more than a resource, which the master Yamato race could exploit.

Despite the pervading racism in the camp, there were some rare instances of resistance by scientists and Japanese workers at Unit 731. These misgivings did not often manifest themselves in open rebellion for what they were seeing or doing, but there are some cases of refusals to commit atrocities. One member of Unit 516, known only as “technician lieutenant S.Y.,” was ordered to participate in a poison gas experiment on prisoners yet he refused by stating, “he was a Catholic, and therefore could not participate in such inhuman experiments.”⁹³ Guo states that his resistance went unpunished which was quite rare in the Imperial Army where the slightest provocation called for severe punishment. In another example of resistance, a junior member of Unit 731, named Tsuruta Kanetoshi, was ordered to pour typhoid into a river to poison the locals. When Ishii later asked how Tsuruta felt about the war, Tsuruta stated, “It’s better not to go to war.” For that simple act of defiance, he fed lice with his own body for three days.⁹⁴ An anonymous hygiene specialist gave an account of how two officers, Warrant Officer Murakami and his partner, Sergeant Maruyama, committed suicide.⁹⁵ The two had been infecting the local water supply. The anonymous witness speculated that Murakami might have felt bad about infecting people because locals had been approaching them with accusations of poisoning the water and that was the reason for his suicide. He also believed that Maruyama might have

⁹² Kleinman, Nie, Selden, 109.

⁹³ Ibid, 111.

⁹⁴ Ibid, 111.

⁹⁵ Anonymous, “Hygiene Specialist (Anonymous)” in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 184-185.

committed suicide because he was under pressure from other officers after Murakami killed himself. The anonymous witness does not give a clear reason why Maruyama was pressured to commit suicide.⁹⁶ Examples of resistance are rare and there is no way to calculate how prevalent it was in the absence of an official record recording such events.

Nakagawa Yonezo, who studied at Osaka University during the war, was shown videos of experiments, about which he later commented, “some of the experiments had nothing to do with advancing the capability of germ warfare, or of medicine. There is such a thing as professional curiosity: ‘What would happen if we did such and such?’ What medical purpose was served by performing and studying beheadings? None at all. That was just playing around. Professional people, too, like to play.”⁹⁷ In the racist hierarchy of the East Asia Co-Prosperity Sphere, those deemed lesser races existed to be used, whether it was in the name of science or curiosity, it mattered little as long as the goals of the Yamato race were advanced. To achieve his goal of seeing Japan take its rightful place in the world order, Ishii created sub-units to work independently and in concert with Unit 731.

Beyond Unit 731: Unit 100

As part of the cause to advance Japan’s claim of the East Asia Co-Prosperity Sphere, other units were created to conduct biological warfare research. They were part of a coordinated network, many operating under the command of Unit 731 while some operated independently. Unit 100 was a subsidiary unit of Unit 731. It was also known as the Wakamatsu Unit because

⁹⁶ Anonymous, “Hygiene Specialist (Anonymous),” 184-185.

⁹⁷ Nakagawa Yonezo, “Professor Emeritus at Osaka University (Nakagawa Yonezo)” in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 222.

its director was Major General Wakamatsu Yujiro.⁹⁸ The unit was located in Changchun, which was the capital city of the Manchukuo puppet-state, and Unit 100's specialty was veterinary diseases as well as diseases, which could affect crops.⁹⁹ Upon first glance, this specialty might seem relatively benign compared to the notorious Unit 731, but Unit 100 did not just conduct tests on animals and crops, they were very active in testing these same diseases on humans to see what the effects might be. Unit 100 did extensive testing of anthrax and glanders on humans. Barenblatt was able to uncover two documents, which detail thirty individuals experimented on with anthrax and twenty-one with glanders. Barenblatt notes that none of the individual's names were given and in the diagrams, all of them were drawn with the same face and body; their identities were unimportant to their killers.¹⁰⁰ It is also likely that many of the victims of Unit 100 were Soviet POWs. The anonymous hygiene specialist mentioned in the previous section also attested to Russians being used in experiments at the Unit 731 Ping Fan facility when he claimed to have seen a white Russian who had been cut in half lengthwise and placed in a human sized specimen jar. He was caught looking at the Russian by an officer and he ran away, an officer later approached his detachment to demand who had seen the Russian and when he came forward, he was hit in the head with a kendo practice sword.¹⁰¹ The information revealing Unit 100 used Soviet POWs was gleaned from interrogations conducted during the United States investigation into Japan's biological weapons program after the war in 1946 when members of the unit were questioned.¹⁰² Wakamatsu was evasive and lied during his mild interrogation, but

⁹⁸ Barenblatt, 40. The naming of a Japanese unit after its leader was standard practice throughout the Japanese military.

⁹⁹ Ibid.

¹⁰⁰ Ibid, 118.

¹⁰¹ Anonymous Hygiene Specialist, 180.

¹⁰² Williams and Wallace, 203.

one of his subordinates was questioned more thoroughly. The subordinate, Kino Takeshi, explicitly implicated Wakamatsu and many others in Unit 100 for conducting human experiments, including vivisections. Kino also gave testimony of the human experiments carried out by Unit 100, though he was always careful not to implicate himself in direct involvement.¹⁰³ He stated that glanders was one of the diseases being researched and that vivisections were conducted in outdoor dissecting areas. In his testimony, he also stated that he believed Soviet POWs were being experimented on along with many Chinese.¹⁰⁴

Unit Ei 1644

Unit Ei 1644, more widely known at the time as the Tama Unit, was located in Nanking, site of the infamous Rape of Nanking.¹⁰⁵ Established on 18 April 1939 in the heart of Nanking less than fourteen months after the chaos of the Rape, Ishii placed the unit under the leadership of Masuda Tomosada. The reason for choosing Nanking as the unit's location is still a mystery.

¹⁰⁶ It is also unclear if locating the unit to Nanking had any connection with the rapes and massacres in the months before. While not the largest unit in Ishii's biological weapons empire, Unit 1644 experimented on and killed thousands of Chinese. One of the unit's main functions was the mass production of bacteria for use in attacks and possibly by other units for research.¹⁰⁷ Small compared to other units, 1644 had about 1500 personnel working at a central office and headquarters with a hospital and four story attachment that housed the research labs and a prison where test subjects were kept.¹⁰⁸ Like many of Ishii's units, Unit 1644 was well funded and

¹⁰³ Harris, 254-255.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid, 135, 137.

¹⁰⁶ Ibid, 137-138.

¹⁰⁷ Barenblatt, 124.

¹⁰⁸ Ibid, 123.

despite its official designation as a battalion, the unit received funds in the amount that was normally be allotted to a regiment, as attested to by an interview conducted after the war with an anonymous member of the unit, one of the only available from Unit 1644.¹⁰⁹ This anonymous source makes note of an interesting detail, which was that everyone associated with human experiments wore a special button on the side of their hat.¹¹⁰ He denies his own involvement saying that his job involved caring for animals and taking their blood for testing and producing vaccines. As a kind of hazing ritual, he describes how new members to the unit were required to clean the specimen rooms. The anonymous source recounts how soldiers put fireflies in the room and that the glow from them around the body parts was very eerie and “some of the young recruits suffered emotional problems from the experience.”¹¹¹ Unit 1644 did not only conduct experiments using biological agents, they also received supplies of “nitrile prussiate, acetone, cyanide hydric, arsenic, poison taken from Taiwanese snakes such cobra, habu, and amagasa, as well as crystallized blowfish poison and refined trikabuto poison.”¹¹² The Ninth Army Technology Research Institute shipped the products to Unit 1644 for use in experiments in addition to Unit 1644 collaboration on experiments and field tests with Unit 731.¹¹³

Unit 516

Unit 516 was different from Ishii’s other biological weapons units whose priority was biological warfare. Unit 516’s primary function was as a chemical warfare research unit, which worked semi-autonomously from Unit 731. The unit was located in Qiqihar and conducted

¹⁰⁹ Anonymous, “Researcher attached to Unit 1644 (Anonymous)” in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 150.

¹¹⁰ Ibid, 151. This researcher is unaware of any other references to buttons worn by Japanese who participated in human experiments.

¹¹¹ Ibid, 152.

¹¹² Harris, 145.

¹¹³ Ibid, 145.

experiments throughout the war including coordinated experiments with Unit 731 who also conducted some experiments using chemical weapons as well as other substances such as carbon monoxide.¹¹⁴ Unit 516 was one of many chemical weapons units in China many of their weapons were simply abandoned, buried, or dumped into rivers. The Japanese government denied for about fifty years that there were such weapons in China and Manchuria but finally in the 1990s acknowledged the presence of Japanese chemical weapons in China. In Manchuria alone, it is estimated there are about 700,000 weapons remaining, while the Chinese government contends at least two million weapons are still present.¹¹⁵ The victims of Unit 516 continue to add up because dangerous chemicals left behind continue to kill. On 4 August 2003, construction workers at a site in the city of Qiqihar uncovered five drums filled with mustard gas.¹¹⁶ At least thirty-six people were injured when the drums were ruptured and one person, Li Guizhen, died from his injuries at a hospital after he became covered in liquid mustard gas and sustained burns on about 95% of his body, eyes, and lungs.¹¹⁷ With so many chemical weapons still present in China and Manchuria, the finding of these toxins is common and Li will likely not be the last victim.

Other Known Units

There were many other Japanese units conducting both biological weapons testing and chemical weapons testing. One such unit was Unit 1855, of which little is known aside from its location in Peking (Beijing) and that it was involved in biological weapons attacks against

¹¹⁴ Harris, 334-335.

¹¹⁵ Ibid, 335.

¹¹⁶ Norimitsu Onishi, "Japan Apologizes to China for Injuries From Remnants of War," *New York Times*, August 13, 2003. <http://www.nytimes.com/2003/08/13/world/japan-apologizes-to-china-for-injuries-from-remnants-of-war.html?src=pm> (February 17, 2013).

¹¹⁷ "Mustard gas victim dies in hospital," *China Daily*, August 23, 2003. http://www.chinadaily.com.cn/en/doc/2003-08/23/content_257579.htm

Chinese civilians and military forces in conjunction with Unit 731 and Unit Ei 1644. One of the most notorious operations conducted in one of these joint operations carried out by Unit 731 and Unit 1644, was the biological warfare attacks on Baoshan in which an estimated 200,000 people died during largest and most destructive biological warfare epidemic.¹¹⁸ The attack was carried out through several different methods, which included contaminating water sources, contaminated food left for children, and special ceramic bombs that broke open on impact with not explosives and released a gelatinous substance containing flies to spread disease. Cholera is most commonly spread through water, however Barenblatt specifically states that the ceramic bombs contained cholera-carrying flies.¹¹⁹ This attack was just one of many on the area and other units were involved, including Unit 113 of which very little is known. A member of this unit named Minori Shinano would admit after the war to releasing contagions into the water in Yunnan Province, which was considered strategically important by the Japanese because it is on the border region of China and Burma.¹²⁰ In total, at least four biological weapons units were involved in the cholera attacks on Yunnan Province, including Unit 731, Unit Ei 1644, Unit 113, and Unit 8604. Unfortunately, little is known about Unit 8604 other than it being referred to as the Nami Unit, which could be a code name or it was possibly named after its commander, as this was a common practice throughout the Japanese army. Japan's plans for Baoshan were not over with the first attack in May 1942. More cholera bombs would be dropped throughout Yunnan Province in April 1942 after Baoshan was leveled in a series of bombing attacks with a combination of high explosive, incendiary, and cholera bombs.¹²¹ During Barenblatt's study of

¹¹⁸ Barenblatt, 164.

¹¹⁹ Ibid.

¹²⁰ Ibid, 164-165.

¹²¹ Ibid.

three bombing attacks on the city of Baoshan on 5, 6, and 8 May, he noted that the Japanese effectively destroyed the city after the first bombing runs on May 5, leaving one to question why the Japanese continued to bomb the city for two more days. He states the reason for the subsequent bombings was that people infecting other people and water sources most effectively spread diseases like cholera. To get the people to spread to the outlying areas, Japan bombed the city for two days after the initial bombings to chase out those hiding in the rubble and thereby spreading cholera across the province. They were so effective that the Chinese Nationalist Army was unable to keep troops in Yunnan Province and when farmers from outlying areas went into the city to loot, they inadvertently carried out cholera-contaminated items and further spread the epidemic.¹²² Because Japan had forced the Chinese Nationalist Army to withdraw, it was able to free up troops for other theaters of war. No mention is made of how Japan prevented its own troops from catching cholera but the Japanese did have a number of water filtration systems including at least one invented by Ishii before the war.¹²³ These filtration systems filtered out any cholera that might be present in water sources. Japan had carried out one of the most effective biological attacks in history. There has been some debate about how effective Unit 731 was in its research and how far Japan had really advanced in biological warfare research. Ishii was, after all, prone to over the top showmanship and exaggeration. However, what is seen in Yunnan Province is the work of a dedicated, well-orchestrated, attack carried out using bombs developed by Unit 731 and coordinated with a number of units in the Unit 731 network, and managed to affect one of the deadliest biological warfare campaigns in history over the space of a few short months.

¹²² Barenblatt, 164-165.

¹²³ Ibid.

The Broader Context

In the last desperate days of the war, Japan was willing to sacrifice thousands of men on remote islands like Iwo Jima, bomb charges on Okinawa, and suicide kamikaze attacks against American naval ships. Often in these fierce battles, neither side attempted to take prisoners. Neither the Japanese nor the United States had a monopoly on hatred and racism. A sense of justice and purpose on both sides often fueled the ferocity of the battles in the Pacific. The Japanese were fighting to gain their “proper place” against what they often described as a demonic horde of bloodthirsty foreigners, and the United States believed it was fighting against a beastly race of savages who murdered everywhere they went.¹²⁴ Fuelled by racial hate from every side, World War II’s brutality was not without limits. It did not become the chemical apocalypse some feared. Regardless of the numbers of chemical weapons in China, Japan was underequipped to use gas in the Pacific theater, while the Japanese believed the United States was far better prepared.¹²⁵ The Tokyo High Command believed, including Tojo Hideki, that the United States would only use gas in a retaliatory manner or maybe to break a stalemate on the battlefield. In either case, neither side significantly deployed gas against the other.¹²⁶

While it is convenient to point to the Japanese army units as the main perpetrators of human experiments, the range of criminals goes well beyond these units. Also involved were universities, military hospitals, and pharmaceutical companies. Just like there were many units, there were many other participants. The scientists of Unit 731 published details of human experiments and their findings in medical and scientific journals in Japan under the weak guise

¹²⁴ Dower, 10-11.

¹²⁵ van Courtland Moon, 30.

¹²⁶ Dower. 10-11.

of experiments on animals. Japan's secret biological warfare research was really an open secret within the scientific community of Japan. Great pains were taken at Ping Fan to maintain local secrecy, resulting in the murder of the Chinese who helped build the facility. In Japan, Unit 731 kept its activities secret from the public, but the scientific community was aware of what the unit was doing. By the end of 1945 and before they were aware of the extent to which Japan was conducting research into offensive capabilities, the United States was also aware of the connection between the biological warfare units and Japan's major universities.¹²⁷ The report also identified the various water purification units as being involved in biological weapons, which is now known to be true.¹²⁸ One of the covers for Ishii's units was that they were epidemic disease prevention and water purification units. This made sense considering Ishii actually invented a water purification system in use by the Japanese army.¹²⁹

In 1948, several medical professors and students were accused of carrying out human experiments on eight US airmen, including vivisections.¹³⁰ The trial was held at Yokohama, a city near Tokyo, and was part of the Class B and C war crimes trials. The professors and students were also accused of cooking and eating the organs of the US aviators in what appeared to be some form of ritual ceremony.¹³¹ Two professors were sentenced to death, however, one committed suicide and the other's sentence was commuted to life in prison, while the students received lengthy prison terms.¹³² The trial shows that experiments took place on the Japanese mainland at least in a limited fashion. The university obtained the prisoners from the military

¹²⁷ Cunliffe, JWC 16, pg 20.

¹²⁸ Cunliffe, JWC 4, pg 19

¹²⁹ Barenblatt, 10.

¹³⁰ Barenblatt, 218-219.

¹³¹ Ibid.

¹³² Ibid, 218-219.

who had custody of the aviators after they were captured when their B-29 bomber was shot down.¹³³ Both Kyoto and Tokyo University stand accused of aiding in Ishii's experiments and there is testimony to back up the accusations. A professor emeritus at Osaka University who studied at Kyoto University during the war named Nakagawa Yonezo testified that he and other students watched videos of human testing and executions.¹³⁴ His instructor told them that some tests were better performed on humans.¹³⁵ He then viewed a video of air injected into the arm of a prisoner in a testing unit in Manchukuo in order to cause a fatal air embolism along with videos of beheadings.¹³⁶ The instructor, Nakagawa recalls, told them that medicine must become a weapon. This justification does not explain why such experiments were conducted except out of simple curiosity.¹³⁷ The instructor was repeating the way Ishii felt about medicine. He was instilling in his students the ultra-nationalist view of medicine as a tool for the betterment of the state.

In June 1989, construction workers discovered numerous human remains at the former Army Medical College in Shinjuku, Tokyo. They uncovered over a hundred individuals, mostly skulls of men.¹³⁸ Forensic examiners who conducted the investigation claimed the skulls showed signs of being preserved and many appeared to have been used for ear and brain surgery training.¹³⁹ It was not stated if this was done while they were alive or as cadavers. They were described as "Mongoloid" in origin and some were believed to be Chinese, Korean, and

¹³³ Barenblatt, 218-219.

¹³⁴ Nakagawa, 221-222.

¹³⁵ Ibid.

¹³⁶ Ibid.

¹³⁷ Ibid.

¹³⁸ Gold, 126-127.

¹³⁹ Ibid, 126-127.

Japanese.¹⁴⁰ The origins are consistent with the demographics of those experimented on by Unit 731 and other units and hospitals. Though no direct link with Unit 731 was confirmed, it has been shown that they were not the only ones conducting human experiments and that human exploitation was conducted throughout the Japanese empire. The Shinjuku ward administration attempted to cremate the bones, however citizen activists stopped the cremation and the bones are still under the possession of a local funeral home and their fate is still undecided.¹⁴¹ China was also critical of the attempted cremation of the bones because they believed it was an attempted cover-up, but formal complaints were not filed.¹⁴²

Human exploitation by the Japanese military was not explicitly married to human experimentation. It took on many forms including the now widely publicized abuse of the comfort women who were women forced into prostitution by the Japanese military to service Japanese soldiers. These women were mostly Koreans, but some were Chinese, and very few Japanese. Rapes committed by the Japanese army were common. The Rape of Nanking is probably the most famous example in which thousands of women were raped in an orgy of violence and murder after Japan captured the city of Nanking. When it came to rape, Unit 731 was no different from many other Japanese army units. Hal Gold recorded a lecture by Nishino Rumiko, a lead researcher on the comfort women.¹⁴³ In her lecture, she describes speaking to a member of Unit 731 during which he explained he had a human experiment scheduled but with time to kill he and another unit member went to the prison and located two Chinese women. The other man raped the first woman, who suffered from the effects of a frostbite experiment because

¹⁴⁰ Gold, 137.

¹⁴¹ Ibid, 137-138.

¹⁴² Ibid, 138.

¹⁴³ Nishino, 159.

she had missing fingers, her exposed bones were black, and she had gangrene. The second woman escaped rape because they observed she showed symptoms of a venereal disease.¹⁴⁴

Another account given by Nishino is of a man named Yoshimura Hisato who became the head of the Kyoto Prefectural University of Medicine after World War II. During his time with Unit 731, Yoshimura studied frostbite and in one experiment he injected a temperature-sensing needle into the hand of a three-month-old baby whom he then placed in ice water in order to measure the temperature changes. After the war was over, Mrs. Nishino stated Yoshimura published the experiment along with the results in a Japanese medical journal.¹⁴⁵

Another example of the way the Japanese exploited those they viewed as inferior was the use of Chinese soldiers and civilians for bayonet practice. They would often force the prisoner to kneel or tie them to a wooden post. Japanese soldiers were then required to approach the prisoner and conduct bayonet drills upon them, repeatedly stabbing the person. Tomioka Heihachiro, a member of a hygiene corps, remembered from his wartime experience that he was told one day they would do bayonet practice on five prisoners captured by the Kenpeitai, Japan's version of the Gestapo. When they brought them in he saw that, the prisoners were just seventeen or eighteen years old. Nevertheless, he and twenty-four others lined up and repeatedly stabbed them repeatedly. He recalled hearing one of the boys crying for his mother before he died.¹⁴⁶ At the time of the killing, Tomioka was in the Youth Corp, a militant organization of teenage boys similar to the Hitler Youth in Nazi Germany.¹⁴⁷ Another example of prisoners used for training was the trial, *USA vs. Kajuro Aihara et al.* In this case, thirty-three men were

¹⁴⁴ Nishino, 165-166.

¹⁴⁵ Ibid, 165. Neither the original article nor a copy of this publication could be located by this researcher.

¹⁴⁶ Tomioka Heihachiro, "Member of the Hygiene Corps (Tomioka Heihachiro)" in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 224.

¹⁴⁷ Ibid, 224-225.

accused of the murder of United States aviators. Eight aviators were used to train young officers of a guerilla unit on the island of Kyushu, one of the four large islands that make up the Japanese home island chain. The officers practiced karate techniques on the prisoners, fired arrows from bows and crossbows at several other aviators, and beheaded the rest with swords as part of the training exercise.¹⁴⁸ The incident occurred in August 1945, less than a month before the end of the war in September.

Most of the biological warfare research detachments, like Unit 731, were part of the Japanese Imperial Army. However, the Japanese Imperial Navy also conducted human experiments at military hospitals in the Pacific. This attested to by two court cases, which also represents the few instances of Japanese prosecuted for human experiments. In the first, *USA vs. Iwanami Hiroshi et al.*, nineteen Japanese were charged with the murder of eight captured US airmen at a hospital on Dublon Island.¹⁴⁹ The trial was held in 1947 and the court documents record that the nineteen accused were charged with murder. The document stated they had “without justifiable cause...injure, infect and kill, by experimenting with infections of virulent bacteria, with exposures to shock and with other methods...” murdered the captured aviators.¹⁵⁰ Unit 731 conducted experiments similar to the charges leveled at the nineteen defendants but no connection was ever made in the recorded court proceedings between the hospital on Dublon and Unit 731. Four of the Americans were injected with streptococcus bacteria and developed blood poisoning which killed them soon after.¹⁵¹ A man named Nakamura, who was witness to the crime, stated two doctors who were dead by the time of the trial along with the commanding

¹⁴⁸ *USA vs. Kajuro, Aihara et al.* Case #288 (JAG, 1948), 14.

<http://home.comcast.net/~winjerd/IMTFE-Docket288.pdf>

¹⁴⁹ *USA vs. Iwanami Hiroshi et al.*

¹⁵⁰ *USA vs. Iwanami Hiroshi et al.*

¹⁵¹ *Ibid.*

officer of the hospital, Iwanami Hiroshi, conducted a shock experiment on the remaining four American prisoners where by tourniquets were tied on the arms and legs of each prisoner. Two Americans had the tourniquets left on for two hours and the other two Americans had the tourniquets on for seven hours. After the allotted time had passed, the tourniquets were quickly removed.¹⁵² Two of the Americans died instantly due to shock and the other two survived but were strangled soon after.

A separate trial was held for Surgeon Lieutenant Commander Ueno Chisato, head medical officer of the Forty-first Naval Guard Unit, and Captain Asano Shimpei, who were accused of mistreating United States prisoners in *USA vs. Asano Shimpei, et. al.*¹⁵³ Ueno requested and received permission to perform an operation on two captured US aviators. Ueno and several other of the accused removed the right toenail, made an incision in the right breast and abdomen, incised the right testicle, and exposed the femoral artery in the right thigh of one prisoner.¹⁵⁴ Ueno claimed the operation was to correct a nail bed infection and the other incisions were to check for internal bleeding.¹⁵⁵ His excuse that he was just treating a nail bed infection, even to someone with no medical background, was absurd. During the operation, Ueno exited the room and told a man named Nagashima to “take care of” the second prisoner who was then taken to an area near the sick bay and bayoneted to death by another man named, Tanaka, and four or five other unnamed soldiers.¹⁵⁶ Ueno, Iwanami, and Asano were sentenced

¹⁵² Suzy Wang, “War crimes and trials and post-war politics,” in *Japan’s Wartime Medical Atrocities: Comparative inquiries in science, history, and ethics*, ed. Arthur Kleinman, Jing-Bao Nie and Mark Selden (New York: Routledge, 2010), 36-37.

¹⁵³ *USA vs. Shimpei Asano et al.* A17-19(4), Vol. 1 of 2 (JAG, 1947), 16.
www.fold3.com

¹⁵⁴ *USA vs. Shimpei Asano et al.*, 17.

¹⁵⁵ Wang, 37-38.

¹⁵⁶ *USA vs. Shimpei Asano et al.*, 17.

to death by hanging. In both incidents, POWs were requested for a specific purpose and both requests were granted. Iwanami was also accused of taking organ samples from the POWs he murdered and placing them in bottles and then boiling down the skulls to be sent to Tokyo where they have still not been recovered.¹⁵⁷ This last accusation is supported by the discovery of the skulls in Shinjuku, which investigators had determined were sent there from elsewhere in the Japanese empire and while there is no discernible link between the two incidents, it helps to illustrate that such actions were undertaken in at least a limited capacity.

Under the racist concept of “proper-place,” non-Japanese were merely tools of the Yamato race. However, in order to obtain a clearer picture of Japan’s war crimes, it is necessary to view the actions of the scientists of Unit 731 in the context of the racist ideology held by many in Japanese society, particularly in the military. Nationalism provided the motivation for some scientists and the atmosphere of racism delivered the justification to conduct human experiments. Many officers, soldiers, and scientists were extremely patriotic and firmly believed it was the rightful place of the Japanese people to stand at the top of the pantheon of nations. They believed science and myth dictated the divine right of the Yamato race to stand above all other nations. Ultra-nationalist thought dictated that the Japanese were a racially pure people, both in heritage and in morality. It was therefore necessary to try to raise other people to be nearer the level of the Japanese through the spreading of Japanese culture with the purpose of creating a coalition of racial groups under Japanese rule.¹⁵⁸ However, those raised up by the Japanese would never be the equals of the Japanese and would always remain tools of the master Yamato race.

¹⁵⁷ Wang, 38.

¹⁵⁸ Dower 288-289.

IV. THE UNITED STATES AND COVER-UP

The United States government actively sought to cover-up Japan's human experiments after the war. General Douglas MacArthur, Supreme Allied Commander in Japan, issued orders to offer Japanese scientists protection from war-crimes prosecution in exchange for scientific data on biological weapons, and the Joint Chiefs of Staff in Washington D.C sanctioned these orders. When the investigation started, the Japanese scientists were fearful of prosecution and lied or downplayed the type of research conducted. Once they received immunity from General MacArthur, the Japanese scientist became much more compliant with their captors and turned over a wealth of information. Ishii Shiro managed to stay in hiding until 1946, but other members of Unit 731 were caught quickly. Only after securing immunity did Ishii come forward. Most of the Japanese scientists in Manchukuo managed to escape capture by the Russians and fled to Japan.

The United States knew about Japan's chemical warfare research before World War II started and the information the US possessed on that subject was extensive. In 1943, a manual, which details the capabilities of chemical warfare for Germany, Italy, and Japan, was prepared by the Military Intelligence Service section of the War Department. The document describes various weapons and apparatuses for use in chemical warfare operations. It also includes information on how the weapons were used and how effective they were. Most of this knowledge was gained through captured examples from contact in the field by American and British forces. The document also acknowledges that chemical weapons were used in China on civilian and military targets. One section of the document states that chemical weapons produced in Himeji, Japan, were shipped to Manchukuo for use in testing by the Kwantung

Army; however, it never states if this was human testing.¹⁵⁹ Unit 731 and its subsidiaries used chemical agents in tests, though their primary purpose was the study of biological weapons. There were at least two regiments of about 1500 soldiers each whose sole purpose conducting chemical warfare operation. There were also many smaller units normally consisting of about fifty men each attached to regular army regiments and these men would specialize in the dispersal of chemical weapons. Mustard gas and lewisite were the two main chemical agents produced by Japan, though they had at least thirteen other highly toxic chemicals for testing and use.¹⁶⁰ In one test, described by an anonymous Imperial Army major, Unit 731 and Unit 516 held a joint operation east of Harbin, possibly at the Anda testing grounds. During the test, a prisoner was put in a glass tank and adamsite was pumped in. This gas, also known as sneezing gas, caused the prisoner to have violent convulsions and extreme pain. The anonymous observer stated there were at least ten scientists and technicians present, and that after about ten minutes, he could no longer watch.¹⁶¹ The War Department document confirmed adamsite was available to the Japanese and lists agents available to Italy, Germany, the United States, and France.¹⁶² Some of the gases listed are mustard gas, lewisite, mustard lewisite mixture, chlorine, cyanogen bromide, arsine, phosgene, and adamsite. In total, twenty-three gases, including their tactical class, are listed. Nine agents classified as harassing were non-fatal irritants like tear gas.

¹⁵⁹War Department, Military Intelligence Service. *Enemy Capabilities for Chemical Warfare* (15 July 1943) Washington, Special Series, No. 16., MIS 461. (Some identifying information was redacted upon declassification) , 90.

¹⁶⁰ Ibid, 93.

¹⁶¹ Anonymous, "Army major and Technician attached to Unit 516 (Anonymous)" in *Unit 731: Testimony*, Hal Gold (Tokyo: Yenbooks, 1996), 241.

¹⁶² War Department, Military Intelligence Service, 157.

Another fourteen agents listed as casualty, like mustard gas and chlorine gas, could kill or cause long-term injuries¹⁶³

The Japanese also developed gas grenades and devices called “candles” which released toxins after being activated and thrown. Japan’s capabilities were ranked during the war by the United States as being similar to Italy because both countries were believed to have begun their development of chemical weapons after World War I. For Japan, early testing was thought to be almost purely defensive, with offensive capabilities being developed after 1926.¹⁶⁴ Japan’s development of chemical weapons was advanced and the Japanese were capable of effectively delivering toxic agents via multiple delivery systems in the air and on the ground. During the war in China, gassing enemy positions before an assault became common practice. In an interview, a Japanese soldier named Tanisuga Shizuo recounts how he was assigned to a poison gas unit in 1937 and trained in the use and cleanup of chemical weapons. He describes how he used red canisters in combat. They had a fuse and when lit and used under favorable wind conditions would release a cloud of noxious gas that would drift toward enemy positions. The soldiers had to wear special rubberized outfits and headgear lest they be exposed themselves. Tanisuga states that he only used gas one time in combat and describes how the Chinese fled, as they often did not have gasmasks. The gas used was sneezing gas, or adamsite, the same substance used in joint Unit 731 and 516 tests on prisoners. Tanisuga describes how an old woman with bound feet was caught by the gas because she was unable to run and suffered horrible coughing fits before dying. Tanisuga Shizuo became a member of the Poison Gas Workers’ Association after the war. The Association works to secure compensation for the

¹⁶³ War Department, Military Intelligence Service, 157.

¹⁶⁴ Ibid, 92.

injuries suffered by those who made and used poison gas during World War II. He claimed to have documented the number of times gas was used over the course of the war and states that it was used, “nine times in 1937, 185 in 1938, 465 in 1939, 259 in 1940, and 48 in 1941.”¹⁶⁵ Japan’s had sufficiently developed its chemical weapons to be effective in combat, but the Japanese did not use poison gas against US soldiers out of fear of reprisal chemical attacks by the United States.

The United States government appears to have had little knowledge of Japan’s early biological weapons research. There were a few indications that Japan was conducting biological warfare research in the late 1930s but due to racist attitudes in the US these were ignored out of the belief Japan was incapable of such research. The United States suspected during World War I that the Germans might have used, or tried to use, the glanders virus to incapacitate horses in cavalry units. This raised the possibility that biological weapons might be used during World War II.¹⁶⁶ Many in the war department believed that the Japanese were not inventors and lacked the imagination to develop biological weapons and were only capable of making poor copies of innovations from other countries. As Harris states, “the Japanese stereotype in the West was that of an industrious people who were hardworking, disciplined, but lacking in imagination or creativity.”¹⁶⁷ The United States feared more from the Germans with respect to biological and chemical weapons.

By the time World War II started, Japan was capable of using chemical and biological weapons within their theaters of combat. They proved this when they conducted one of the most

¹⁶⁵ War Department, Military Intelligence Service, 92.

¹⁶⁶ Harris, 218.

¹⁶⁷ Ibid, 219.

effective biological attacks in history in a part of China called Yunnan Province. An unnamed informant reported that while stationed in Japan he overheard a drunken German scientist boast that the German doctors were in Japan solely to “teach Japanese the art of bacterial warfare and that someday Germany would get its revenge over the United States through the use of that mode of warfare.”¹⁶⁸ Any development at this stage was not in the same form as conducted by Ishii and not on the same industrial scale. After it became apparent by 1937, because of coverage by multiple media sources, that Japan was actively conducting biological warfare attacks in China the United States government continued to believe that Japan was not capable of delivering biological weapons to the mainland US even if they possessed the weapons.¹⁶⁹ The assessment at the time that Japan was not able to deliver such weapons to the United States mainland was likely accurate if one considers the delivery capabilities of their conventional weapons. However, the Japanese were capable of delivering biological weapons to a local theater of combat.

In 1939, an incident occurred which would require the United States government to take seriously the threat of biological attack from Japan in the event of war. In February 1939, a group of Japanese scientists suddenly showed up at the Rockefeller Institute for Medical Research in New York. Their visit was unannounced and they made a request for yellow fever virus, which is very deadly and spreads quickly via mosquitoes.¹⁷⁰ Among the scientists was the infamous Naito Ryoichi of Unit 731. After their initial request was turned down, Naito attempted to bribe a technician with \$3000, which was once again turned down.¹⁷¹ The Rockefeller Institute reported the incident to the United States government along with another

¹⁶⁸ Harris, 219.

¹⁶⁹ Ibid, 218.

¹⁷⁰ Barenblatt, 183-184.

¹⁷¹ Harris, 203.

incident, which occurred in August of the same year. The Rockefeller Institute turned down a request for yellow fever virus by a well-known Japanese bacteriologist named Dr. Miyagawa Yonetsugi.¹⁷² The Rockefeller Institute incidents highlight a brazen attempt by Japan to acquire new diseases and more importantly, the beginning of awareness by the US government that the Japanese were actively pursuing biological agents for research at a time when tensions were high. Considering the work on biological weapons being done at the time by Naito, it seems likely the intention was to weaponize it or to make a vaccine and develop treatments in the event the United States used yellow fever attacks on Japan.

Investigation

One of the first investigators of Japan's biological warfare research and human experiments was Lieutenant-Colonel Murray Sanders of Fort Detrick in Maryland, which was the United States' main biological warfare research facility. During the war, one of Sanders' tasks was the interception and study of Japan's balloon program, which was feared could carry diseases to be spread across the United States mainland. These balloons were launched from Japan and would float across the Pacific using airstreams and some would eventually land in the United States. Often, they carried incendiary devices but very few casualties were reported because the balloons mostly landed out in the wilderness. None of the balloons Sanders would examine came back positive for any biological or chemical agents.¹⁷³ Yet Sanders did not fail to express to those above him the danger he believed the balloons posed. Because of his warnings, the War Department in Washington D.C. granted Fort Detrick the funds required by Sanders for more research. The balloons likely posed little danger because they would have been highly

¹⁷² Harris, 203.

¹⁷³ Barenblatt, 196.

ineffective at delivering any diseases and then disseminating them amongst the population.¹⁷⁴

There was one report in 1994 by a man named Yoshikuma Ogura who claimed to have knowledge that Japan was conducting germ attacks against the Soviet Union using balloons. However, he mentioned no details of how they worked and his is likely the only real record of such balloons existing.¹⁷⁵

Barenblatt believed Sanders knew the balloons would not be effective for biological weapons delivery but used them to stoke fear amongst government officials to secure funding for his own research projects. It is similar to how Ishii gained his funding early in his career by constantly espousing the supposed benefits of biological warfare and not letting the lack of evidence stop him. Others clearly did not express Sanders' fears because a report dated 2 January 1944 sent to Lieutenant-Colonel M. Moses discusses the discovery of two balloons on the Pacific coast, and the following investigation which determined that the balloons found would be highly ineffectual for delivering disease agents.¹⁷⁶ Various possibilities for dissemination were discussed including the possibilities that balloons might carry live animals though this was deemed highly unfeasible considering the high-altitude conditions the balloons would be traveling through.¹⁷⁷ The author of the report also concludes that to use something like rats would likely mean they planned to use plague. Considering much of the Midwest United States already has plague, the conclusion was using such a disease would be pointless. The only other method of dissemination would involve bugs. These are again, unlikely to survive the

¹⁷⁴ Barenblatt, 196.

¹⁷⁵ Ibid, 197.

¹⁷⁶ Cunliffe, JWC 77/1, pg 12.

¹⁷⁷ Ibid.

journey and the time of year the balloons were launched would not be ideal for insects.¹⁷⁸ The report does not conclude that balloons are impossible for spreading biological agents, but strongly suggests that any such attempt would be highly ineffectual and inefficient.

As with Japan's research, the conducting of experiments with deadly diseases did not come without risk and one incident in particular nearly ruined the career of Lieutenant-Colonel Sanders. During one incident in 1943, ten researchers were exposed to brucellosis, which causes undulant fever. One of those infected was Gifford Bryce Pinchot, son of Gifford Pinchot Sr., who was the former governor of Pennsylvania. Sanders and the other doctors fought hard to save Pinchot using a combination of penicillin and streptomycin, managing to save the young man's life while some of the others infected were not so fortunate and died.¹⁷⁹ Sanders then had a dinner with the man's father, along with two United States Supreme Court Justices, and during the course of the evening explained what happened to Pinchot's son. Camp Detrick's activities were considered highly classified and Sanders was placed under house arrest by his commanding officer. The very influential Gifford Pinchot Sr. was able to secure Sanders' freedom and earn him the rank of Lieutenant-Colonel.¹⁸⁰ In another case, a technician was infected by highly toxic *Clostridium Botulinum* when it was accidentally sprayed into his eye.¹⁸¹ Robert Stroud wrote the report on the incident and Stroud suggested the disease be used in invasions because it could be dispersed in fine inert powder-like silicon and causing illness within two to twenty-four hours.¹⁸²

¹⁷⁸ Cunliffe, JWC 77/1, pg 12.

¹⁷⁹ Barenblatt, 194.

¹⁸⁰ Ibid, 193-194

¹⁸¹ Cunliffe, JWC 184a, pg 13.

¹⁸² Cunliffe, JWC 184a-184d, pg 13-16.

This report was forwarded to the Army, Navy, and Office of Strategic Services (OSS), the precursor to the Central Intelligence Agency.¹⁸³

Before 1937, there was little interest in the United States government or military about biological warfare. After realizing the course other countries were taking in developing the weapons, especially Germany whose capabilities the United States thought were more advanced than Japan, the United States began a coordinated research effort in 1942. The US very quickly caught up, ultimately surpassing just about every other country by the end of the war.¹⁸⁴ This change in attitude is what led to the investigations into Japan's biological warfare program and the subsequent cover-up. It also came with the knowledge that Japan was actively using biological warfare on people in Manchukuo by poisoning wells and reservoirs in 1944.¹⁸⁵ By 1945, the United States military was well aware of Ishii Shiro. Sanders admitted that General MacArthur was very worried about biological warfare attacks when the invasion of Japan took place, believing that Ishii would almost certainly use biological warfare to stop American soldiers. Because of this, Sanders was posted to MacArthur's staff in preparation for the invasion and the investigation into Japan's biological warfare program in the aftermath of the war.¹⁸⁶ Sanders would be one of the first to investigate and when he arrived in Japan at the end of the war, the invasion having never come to fruition, he was in for a surprise. Waiting for him on the docks of Yokohama was a member of Unit 731 named Naito Ryoichi. Naito was smiling and holding a picture of Sanders, a greeting Sanders likely did not expect.¹⁸⁷

¹⁸³ Cunliffe, JWC 184a-184d, pg. 13-16.

¹⁸⁴ Harris, 217.

¹⁸⁵ William and Wallace, 124.

¹⁸⁶ Ibid, 130.

¹⁸⁷ Barenblatt, 204.

Naito was not very forthcoming with information about Unit 731. It stands to reason this was because Naito knew what could befall himself and his compatriots should Sanders become fully aware of what the unit was doing. After making no progress in his interviews, Sanders decided to bluff and told Naito that a new investigator was being brought in and that the Soviets would be involved. The bluff worked and Naito produced what became known as the Naito Document. This document listed the chain of command for Unit 731 and placed the Emperor at the top though Naito stressed the Emperor was not involved in subsequent interrogations.¹⁸⁸ It is possible it was mere formality to place the Emperor at the top of the list, but when coupled with other evidence, it seems likely Emperor Hirohito was aware of what Unit 731 was doing. Naito also denied that prisoners were used for experiments. At first, Sanders believed Naito, but after more questioning, he realized Naito was lying.¹⁸⁹ Naito admitted the Army Medical College in Tokyo conducted research into biological weapons. He stated the College's research focused on small-scale defensive operations, such as studying ways to quickly mass produce bacteria if large amounts of immunization agents were needed.¹⁹⁰ How extensive the studies in Tokyo were is still unknown. However, in order to get this far in the investigation, Sanders had to give Naito a guarantee that he and his fellow scientists receive protection from war-crimes proceedings, a request MacArthur was willing to grant.¹⁹¹ Many of these orders were declassified under the Nazi War Crimes Disclosure Act, including one issued 17 April 1947, which stated that "no action be taken on prosecution or any form of publicity of this case without the concurrence of

¹⁸⁸ William and Wallace, 132-133.

¹⁸⁹ Ibid, 132-133.

¹⁹⁰ Cunliffe, JWC 192/2, pg 25.

¹⁹¹ Ibid.

the Military Intelligence Corps (G-2). This is by direct order of the C-n-C and CS.”¹⁹² The “C-n-C”, or Commander and Chief, in the order were General Douglas MacArthur and the “CS” was MacArthur’s Chief of Staff, Richard Sutherland. Sanders and the other investigators would find no shortage of people to investigate as not long after they established themselves in Tokyo, they began to get tips and information on war crimes, which were committed. These came from a variety of sources and often from those disaffected by the Imperial Japanese government or the individuals they named.¹⁹³ Sanders was not there to prosecute people, as he was far more interested in learning what advances the Japanese had made in biological warfare and the United States government was also eager to find the mastermind behind it all, General Ishii Shiro who was in hiding. For several months after the war, Ishii was able to elude authorities through bribery and schemes, including faking his own death.¹⁹⁴ It was not long before the Sanders’ investigation tracked him down to his home in Chiba, but they did not put him in jail, allowing him to stay at his house, albeit under house arrest. In the initial interviews, Ishii asserted the same claims as Naito, that he had not conducted research on humans and that only defensive research was done.¹⁹⁵ Most of Ishii’s subordinates were interviewed as well, including the infamous Kitano who was one time commander of Unit 731 when Ishii was removed from command for a short time. Chinese forces captured Kitano at the end of the war; however, the United States broke him out of jail, put him on a US Army airplane and with the compliance of the Chiang Kai Shek government, rushed Kitano back to Japan.¹⁹⁶

¹⁹² Cunliffe, JWC, 257/6, 43.

¹⁹³ Harris, 241.

¹⁹⁴ Ibid, 246-247.

¹⁹⁵ Ibid.

¹⁹⁶ Ibid, 247.

Arvo Thompson, a military investigator, placed in charge of examining Ishii but as with Naito, gained little during his initial interviews. Reports were coming in that Ishii was not as benevolent as he was trying to present himself and as late as 4 October 1946, anonymous sources were accusing Ishii of running a biological warfare research unit. The 4 October report stated that Ishii conducted his research in the suburbs of Harbin and it accuses Ishii of conducting experiments on Allied POWs.¹⁹⁷ The more they spoke, the more information Ishii was willing to give, believing that Japan was ahead of the United States in biological warfare research.¹⁹⁸ In May 1947, MacArthur permitted Soviet officers to speak to Ishii. MacArthur had asked permission from the Joint Chiefs of Staff who instructed him to have Ishii and the other scientists prepped for the interview. Ishii and his family were also instructed to not divulge any important information regarding biological warfare and to not let the Soviets know how friendly the Americans had been. The final stipulation was that an American officer was with Ishii and the other men interviewed at all times.¹⁹⁹ It is clear from this reaction that the United States did not want the Soviet Union getting its hands on any of Japan's biological warfare research out of fear they would use the information to advance Soviet biological warfare research programs. The Soviet investigators were only allowed to hold to interviews with Ishii. The Soviets cited their desire to see Ishii prosecuted as a war criminal but their true reasons were not so altruistic. The Soviets were covering up for their desire to gain any useful information that might give them an advantage against the United States in any future conflict. The Soviet Union also saw Ishii and his compatriots as useful propaganda material. The idea being to expose what they did and

¹⁹⁷ Cunliffe, JWC 2258/8a, pg 36.

¹⁹⁸ Barenblatt, 207

¹⁹⁹ Ibid, 209.

embarrass the United States for not bringing the men to justice as soon as they were caught.²⁰⁰ Such propaganda could be useful in a cold war where the combatants exchanged words more than bullets. For the United States, the Russians also proved to be useful, because they were able to use the threat of bringing in Russian interrogators in order to scare information out of the Japanese scientists as Sanders had effectively done with Naito. The Japanese were far more afraid of the Russians than the Americans and not without good reason. The United States was not concerned with prosecuting the men of Unit 731, because national security was deemed more important than bringing to justice the scientists who had murdered thousands.

The Khabarovsk Trials

The Soviet Union would get its propaganda in the form of the Khabarovsk Trials, held over six days from 25 to 31 December 1949. There were twelve defendants and though Ishii was named at the trial as the leader of Japan's biological warfare program, he was not put on trial in absentia.²⁰¹ Emperor Hirohito was also blamed for the human rights abuses and was accused of ordering the formation of Unit 731, but like Ishii, he was not tried in absentia.²⁰² At the time, there was very little coverage in the United States of the trial, due to the location of the trial in the city of Khabarovsk in an isolated region of Siberia. Had the Soviets wanted the trial to have a bigger impact they could have held it in Moscow and put the Emperor on trial in absentia which would have certainly created a stir. The exact reason why they held the trial in such a remote area is not entirely clear but the timing was likely due to the conflict brewing in 1949 over several hundred thousand Japanese soldiers held in the Soviet Union.²⁰³ The United States

²⁰⁰ Gold, 103-104

²⁰¹ Harris, 317-318.

²⁰² Ibid, 318.

²⁰³ Ibid, 320.

asserted that the Soviet Union was trying to distract from the criticism of its treatment and detention of Japanese soldiers. The Soviet Union accused America of hiding and suppressing information about Japan's war crimes out of a desire to develop biological weapons themselves.²⁰⁴ Ironically, both accusations were correct. Furthermore, the information and accusations presented in the trials were surprisingly accurate. At the time, the United States officially wrote off most of the proceedings as false and propaganda, and while the six-day trial was meant as propaganda, a lot of the information the trial revealed was later determined to be factual by researchers. Going into the trial, each of the defendants was assumed guilty and their defense attorneys admitted this. The show trial was really to determine what sentences they should receive.²⁰⁵ The defendants in the case received unusually light sentences ranging from two to twenty years hard labor and it is likely that they exchanged information for leniency.²⁰⁶ All the defendants but one returned to Japan by the mid-1950s; the one who did not return killed himself months before his release.²⁰⁷

Another incident, which points back to the American cover-up as well as the fledgling Japanese government's complicity in the cover-up after the war, was known as the Taikoku Bank massacre. In 1948, a man walked into a branch of the Taikoku Bank in Tokyo. He identified himself as a member of the Ministry of Health and Welfare and declared that there was an epidemic in the area and that General Headquarters, which was the office of General MacArthur,

²⁰⁴ Harris, 320.

²⁰⁵ Ibid.

²⁰⁶ Ibid, 321. As Harris notes, there is a book available that was published in 1950 which is an abridged version of the trial that has been an excellent source of information for many researchers who have been lucky enough to come by the book. Unfortunately for this researcher, the book is quite difficult to obtain and when copies do become available, they very expensive due to their rarity. The full version of the trial which prosecutors used is about eighteen volumes and has never been made available to researchers. Its current whereabouts are unknown though it has been speculated there might still be an existing copy in government storage somewhere in Russia, possibly Moscow.

²⁰⁷ Ibid, 321

had sent him to deal with the outbreak.²⁰⁸ He stated he had been sent with medicine to protect against the epidemic, and that the manager should gather all the employees. After the manager complied with the order, the Ministry worker imposter then revealed the medicine, inserted a pipette into, put the liquid in a teacup, and demonstrated the particular way it should be drunk which was with the tongue out and quickly so it would go faster down the throat. Then he poured the same liquid into sixteen cups for each person present with the same pipette, which all the employees drank. Twelve died and four survived, and the man made off with only 181, 850 yen, not a considerable amount of money considering it was supposed to be a bank robbery. This troubled police because they did not believe robbery was the real motive.²⁰⁹ Samples of the poison used to kill the victims were sent to Keio University, which determined it to be acetone cyanohydrin.²¹⁰ Only the Noborito Army Research Center in Kawasaki produced this poison and it was highly specialized because it did not kill instantly. Because of the location of its production, the public could not obtain the poison. The Noborito lab developed the poison, but Ishii's Unit 731 tested it and this meant that only someone who either had worked for the Noborito lab or had handled it at Unit 731 could have obtained it.²¹¹ In one of his interviews with American investigators Ishii made a comment about the Teikoku Bank Incident when he said, "I have a feeling that one of my men did it."²¹² The police began to make a list of suspects connected with Unit 731 when suddenly the police claimed to have arrested a person who fit the descriptions given by eyewitnesses.

²⁰⁸ Gold, 117.

²⁰⁹ Ibid.

²¹⁰ Ibid, 119.

²¹¹ Ibid, 120-121

²¹² Ibid, 121.

The man the police arrested was an artist named Hirasawa Sadamichi and after intense interrogation and an attempted suicide, he confessed to the crime, which in Japan at the time was proof of guilt.²¹³ Hirasawa's confession has raised questions about his innocence because of the inconsistencies between his story and the testimony from survivors. He never mentions using a pipette and the word used to describe the teacup was *koppu*, which does not mean teacup in Japanese, but western style drinking-glass. Hirasawa also suffered from a condition known as Korsakoff Syndrome which causes one to have irregular memory loss, which causes the sufferer to try to compensate, by making up false memories.²¹⁴ The final piece of evidence which suggests Hirasawa was innocent was that the four survivors stated Hirasawa did not look like the man who poisoned them, not to mention that Hirasawa could not have had access to acetone cyanohydrin as he had no connections to the Noborito lab. Tokyo University solved this last problem when they also examined the poison and conveniently found it to be potassium cyanide, which is far more accessible.²¹⁵ Hirasawa was convicted and sentenced to death, but the sentence was never carried out and in 1987, Hirasawa died in prison despite the efforts of a small group of activists to free him.²¹⁶ The connections to Unit 731 are very compelling, especially given Ishii's statement. However, to convict a member of Unit 731 in open court of the murders would shatter the veil of secrecy placed over the existence of the unit.

Until 1948, Unit 731 members did not have official immunity. Investigators made promises of immunity and orders not to prosecute them issued but these were not as binding as an official internal declaration. 13 March 1948, General MacArthur received instructions to

²¹³ Gold, 118.

²¹⁴ Ibid, 118-120.

²¹⁵ Ibid, 119-121.

²¹⁶ Ibid, 122.

document immunity for the Unit 731 scientists in exchange for biological warfare information.²¹⁷ Barenblatt stated it eloquently when he said, “the ‘Secret of Secrets’ of Imperial Japan had become America’s big secret.” The United States government had committed itself to their position of covering up the crimes of Japanese scientists, and not just the military scientist, but also the civilians and the universities and pharmaceutical companies in Japan, because they were associated with the crimes. The Japanese government would take the same stance and throughout the rest of the 20th century would deny that human experiments ever took place.

Rockets, Biology, and the Cold War

The response to Germany’s war crimes was similar to the response to Japan’s war crimes. Many of the top Nazis either killed themselves or escaped, but many were brought to justice. Some of the top Japanese war criminals who survived the war or did not commit suicide, like Tojo Hideki, were sentenced to die or to life in prison just like their Nazi counter parts. Nevertheless, many Nazi and Japanese scientists were too valuable. Nazis such as Wernher von Braun, a rocket scientist made famous by his work with the National Aeronautics and Space Administration (NASA), and Eric Traub, a scientist who worked on programs which sought to develop weaponize animal diseases, were brought to the United States to continue their research. Some of these men were accused of war crimes such as using slave labor, yet they were given immunity in exchange for their work in the US after the war. Officially, the process of bringing Nazi scientists to the United States was known as Operation Paperclip.²¹⁸ Operation Paperclip was the largest and longest running operation involving Nazis and continued until 1973.²¹⁹

²¹⁷ Barenblatt, 223.

²¹⁸ Hunt, 1.

²¹⁹ Ibid.

Operation Paperclip began before the war ended when it was realized the Soviet Union posed the next great threat to the United States.²²⁰ This was the excuse often used for justifying the immunity given to Nazi and Japanese doctors. There is a great deal of truth in this statement as the national security of the US was placed above all else. Government officials, like the Joint Chiefs of Staff, knew that the Soviets were actively pursuing German and Japanese scientists. Some of these scientists, like Wernher von Braun, worked for NASA to develop rocket technology and eventually a way to reach the Moon. Others were taken to the Edgewood Arsenal to work with poison gas and other chemical agents like the hallucinogen, lysergic acid diethylamide (LSD).²²¹ In one case, a former service member named James Stanley volunteered in 1958 to test the effectiveness of clothing designed to protect against chemical weapons.²²² Without his knowledge, he was actually given LSD to test the way the human body and brain react.²²³ Stanley was eventually discharged because of personality changes he suffered from the effects of LSD and sued the federal government on the claim that his fourth amendment rights had been violated. His case made it to the US Supreme Court, which decided he did not have a claim to compensation.²²⁴ Stanley was not the only person to undergo human experiments at the Edgewood arsenal, which tested on thousands of people.²²⁵

The United States conducted human experiments in a more limited fashion than those conducted by German and Japan in terms of the number of victims. While the victims in the US

²²⁰ Hunt, 2.

²²¹ Ibid, 157.

²²² *UNITED STATES, et al., Petitioners, v. James B. STANLEY*. 483 U.S. 669 (107 S.Ct. 3054, 97 L.Ed.2d 550) (Supreme Court, 1987)

<http://www.law.cornell.edu/supremecourt/text/483/669> (accessed February 26, 2013)

²²³ Ibid.

²²⁴ Ibid.

²²⁵ Hunt, 158.

are counted in thousands, the Japanese experimented on tens of thousands and possibly more. The exact number will never be known and almost all of those used by the Japanese for testing died. The purpose of tests with drugs like LSD and poison chemicals like mustard gas was to more efficiently wage war.²²⁶ The United States conducted its tests over a much longer period, beginning in 1922 and continuing at least into the 1960s while the Japanese operated from 1932 to 1945.²²⁷ The United States showed such great interest in Japan's program for two reasons. The first was during World War II when Japan was thought to be further ahead since most of the experiments conducted by the US were done with chemical and not biological agents. The second reason was to keep as much information on the development of biological weapons out of Soviet hands as was possible. At the end of the war, it was unknown what advances the Japanese had made, so it was of paramount importance to secure the scientists as quickly as possible. The same reasons applied to the Nazi scientists as well. The fact that the Germans and the Japanese had conducted human experiments was not a reason for pause because the United States had been doing the same thing in a more limited fashion. That the Germans and Japanese had conducted human experiments was only more reason to capture them and obtain any information they might possess.

End of the Secret

The United States' cover-up is well documented. Many of the official internal documents, which ordered the cover-up, have been declassified. However, the government of Japan often resists investigations into its human experiments activities and still refuses to apologize for what it did before and during World War II. It was determined after the war by the Sanders and

²²⁶ Hunt, 162-163.

²²⁷ Ibid.

Thompson investigations that Unit 731 had obtained little knowledge the United States did not already have or could not easily obtain through more benign methods of study. In many cases, Japan's research was useless from a purely scientific point of view. Their research into frostbite, for example, was without purpose considering that the method of treatment was already known. By the time, the United States realized Japan was actually behind in biological warfare research, it was already committed to the cover-up and continued to hide Japanese war crimes out of a desire to avoid embarrassment.

World War II was the largest and bloodiest war in history and the Pacific theater of war is often remembered for its sheer ferocity. Battles like Iwo Jima were fought with extremely high casualty rates and relatively low numbers of prisoners taken by either side. The blame for this does not rest solely with one country or group of people. Blame is placed, at least in part, on the racist ideologies, which many people in the United States and Japan held. For the typical US citizen, the Japanese soldier was at times a bloodthirsty super man and at other times an inferior, ape-like creature that was as brutal as he was cunning. The Japanese as a whole were viewed through the spectrum of previous years of fear that "yellow tide" threatened to wash over the civilized West. For many Japanese, the war was for Japan's rightful place in the world against a spiritually unclean and demonic horde, which sought the repression of Japan. Many Japanese were taught that they could help the Asian people by bringing them the enlightening values of Japanese culture and leadership. The racist ideologies of both sides left little room for mercy when World War II finally broke out but at its end, the hatred on a national scale dissipated. There were still hatreds held by many Americans and Japanese, but the two nations quickly became close allies as the Cold War necessitated the need for cooperation. Unlike what the

Japanese told their citizens, American soldiers did not rape women and eat children. Americans soon found the Japanese were far more diversified in thought and once the war was declared over, many surrendered peacefully after having grown tired of a war, which had left so many dead and a country in ruins.²²⁸ Both sides held misconceptions, which were found to be untrue and not needed after the war. The American demon transformed into a friend and Japan began one of the greatest economic recoveries in history. In the United States, the fear of the “Red Menace” replaced the horror of the “Yellow Peril.” The desire to protect the United States by any means necessary was similar to the desire by the Japanese scientists to develop weapons to use to accomplish Japan’s goals. Racism and nationalism combined to drive the process of human exploitation forward and justify the actions of scientists.

²²⁸ Dower, 301.

V. CONCLUSION

The connections gained during the war paid off handsomely after the war for many members of the Ishii network. The Green Cross, a pharmaceutical company founded by Naito Ryoichi, Futagi Hideo, and Kitano Masaji, was a huge success after the war.²²⁹ The company is famous for being one of the major companies in the Japanese economic boom after the war. It is also infamous for introducing the AIDS virus to Japan when it ignored standard safety procedures for blood transfusions. Other Unit 731 members went on to success as well in other companies. Takeda Pharmaceutical Company, the Hayakawa Medical Company, the S.J. Company, Ltd., and the faculties of Tokyo University, Kyoto University, Osaka University, Kanazawa University, Showa University of Pharmacology, Nagoya Prefecture Medical University, Osaka Municipal University's School of Medicine, and Juntendo University along with several others employed former members of Unit 731 after the war.²³⁰ The Japanese government employed its share of Ishii graduates, including a chief of the Entomology section of the Health and Welfare Ministry's Preventive Health Research Laboratories and a director of Japan's National Cancer Center, as well as a president of Japan's Medical Association.²³¹ There was also a surgeon general of Japan's newly minted Defense Force, and the list goes on.²³² It is also noteworthy to mention that every director of the Japan National Institute of Health, beginning with its creation in May 1947 until 1983 (with only one exception), served in a biological warfare unit. Many Unit 731 men held other important positions in society and won

²²⁹ Gold, 142-143.

²³⁰ Harris, 178.

²³¹ Ibid.

²³² Ibid.

many awards and achievements, while the lower workers, technicians, and soldiers melted back into Japanese society. Ishii Shiro never faced trial and died in quiet retirement of throat cancer in 1959, having lived out his remaining years on a stipend provided by the Japanese government because of his rank of Lieutenant General at the end of the war. What the highest officer to the lowest technician held in common was the environment and ideology under which they operated. The ultra-nationalist philosophy of the Japanese empire justified actions that would normally be reprehensible. Racism stated that it was the purpose of their victims to die for the benefit of their Japanese masters.

While Ishii's Unit 731 was certainly one of the largest of many biological warfare research units, with many of those other units connected to Unit 731 to varying degrees of dependency or autonomy, it was not the only unit actively conducting human experiments. Many other units, which conducted human experiments, have remained hidden due to their small size or lack of records. For years, it was difficult to find much information about the Unit 731 network due to the official cover-up by the United States. Ishii, Kitano, Naito, Wakamatsu and many others held their silence, except for when they spoke to United States investigators immediately after the war in exchange for immunity. For some, what they had done was shameful and in 1993 at the traveling Unit 731 Exhibition, a small number of men and women finally broke their silence and provided some of the best firsthand accounts available to researchers. For all but a very few, their crimes went unpunished. It was only thanks to the dogged research of people like Peter Williams and David Wallace, the book by Sheldon Harris, and the work of many Chinese and Japanese scholars and researchers, and some citizen activists in Japan that the story of Unit 731 has become known. In spite of all the evidence currently

available, the Japanese government, for many years after the war, was reluctant to acknowledge that Unit 731 existed. So far, there has been no compensation to the victims but there has been a certain amount of progress in cleaning up some of the hundreds of thousands of chemical weapons, which were left in China following the chaotic retreat of the Japanese military. However, these weapons still represent a danger to anyone unfortunate enough to stumble across them, because the weapons are still as deadly now as they were during the war.

It is important to remember that the biological warfare research units, so called “water purification units,” were not the only actors in this tale. They were but a portion of the larger machine. The heart of this machine was the universities and scientific community in Japan, which bred the men and women, who carried out the crimes. The universities and governments provided the motivation and justification through racist ideology for murder by telling them their actions would further the goals of the Japanese nation. Places of higher learning, such as Kyoto University, participated in the crimes and it is known now that human experiments took place on the mainland, in army medical hospitals and universities. The story of the murders that took place at Kyushu University in which eight American aviators were dissected and then consumed exemplifies such experiments. The discovery of human skulls and bones in the heart of Tokyo, skulls, which came from Japan’s colonies, represent the exploitation of millions of Chinese, Koreans, Manchurians, and many others. The scientist of the biological warfare research units published their experiments and findings in public, scientific journals in which the only change they would make would be to replace the word human, with monkey. For a scientist reading such an article, it would not be difficult to figure out what it was really about. They might recognize the author’s name as being a member of Unit 731, as many of these men were well

known in the scientific community, or an astute reader might realize that the species of monkey had been left out, something that simply was not done in a professionally written scientific report. Universities were actively involved in Unit 731 activities and showed videos of experiments conducted at the unit, as attested to by firsthand accounts.

At naval hospitals across the Japanese Empire, United States service members were tortured in experiments or used for surgical practice. These hospitals were part of the larger network as well. This giant machine dedicated to the exploitation of humans viewed as inferior did not just include the military and not all the people in its employ were military personnel. It was inextricably linked to the civilian sphere as it was seen by many at the time that it was the duty of every Japanese citizen to work towards attaining Japan's divinely given and scientifically supported right of ruling over Asia. The various ultra-nationalist groups in Japan pushed the country to expand. They believed the Japanese were a divine race whose right was to rule over Asia by creating the Greater East Asia Co-Prosperity Sphere. This sphere was to be enforced by any means necessary, even if that meant using Ishii's biological weapons. Ishii asserted that the combination of conventional warfare and science would make Japan victorious. One piece of propaganda which typified the attitude of many ultra-nationalists after World War II started came from an article in a monthly magazine called the *Bungei Shunjuu* which stated, "The color of purification is faint red, tinged with the pinkness of blood: it is the color of life itself. It is this very warmth of life which has made the cherry blossom the symbol of the Yamato spirit."²³³ White represents purity and red represents the blood and morality of the Japanese people. The pink cherry blossom represents the melding of pure white and blood red. The cherry blossom

²³³ Dower, 212.

became a symbol in song and art of the cleansing of the national soul through the spilling of blood upon the battlefield.

The United States realized during the war the danger Japan's biological weapons program presented, especially in the event of an invasion of the home islands. This invasion of Japan never came to fruition. The use of the atomic bombs over Hiroshima and Nagasaki forced an end to the war. But in the aftermath of World War II and with a cold war looming with the Soviet Union, the United States scrambled to obtain whatever secrets Japan might have discovered in the nearly fifteen years they had spent studying biological weapons. It soon became apparent during the war that Japan had actually used these weapons in China with many reports confirming this. The Japanese managed to carry out one of the most devastating biological attacks in history in Yunnan Province, which killed an estimated two hundred thousand people by creating a cholera epidemic. When General MacArthur arrived, one of the people in his entourage was Lieutenant Colonel Murray Sanders. He was one of the first investigators into Japan's biological weapons program. As soon as he stepped off the ship, the now infamous Naito Ryoichi of Unit 731 fame confronted him. At first Naito was hesitant to disclose information due to the serious nature of Naito's crimes and the war crimes trials already underway. Naito, who spoke English, acted as an intermediary between Sanders and the other Unit 731 members. At this time, Ishii was in hiding and had faked his own death, having a funeral held to solidify the story. After a few months of Naito's delaying, Sanders was finally able to get more information out of him by threatening to bring in Soviet investigators who were not known for being friendly. The harshest treatment Ishii received was when he was placed under house arrest by investigators shortly after they discovered where he was hiding. The

investigators made deals with Ishii in exchange for information and General Douglas MacArthur issued orders not to prosecute any of the Unit 731 members or others in their network for war crimes. In 1948, the Joint Chiefs of Staff officially gave the okay to offer immunity in exchange for information.

The interests of the nation were considered to be above justice for the victims because the Soviet Union was trying to obtain the same information about Japan's biological weapons program for use in their own program, which was probably true. In the end, Japan had little to offer that the United States had not already discovered in its own bio-weapons research center at Fort Detrick. By the time this was realized it was too late and to back out would only embarrass the United States government and prove Soviet accusations of a cover up, true. For their part, the Soviet Union did prosecute some of the members of Unit 731 and the Kwantung Army that they had captured. In a six-day trial known as the Khabarovsk Trials, the Soviet Union tried and convicted twelve people for conducting human experiments. All but one were released, the only one to not return home to Japan killed himself just months before his release, in what may have been a sign of remorse for the crimes he committed. The trial was mostly for show although it was held in the backwater industrial city of Khabarovsk which meant it received little media attentions. Despite this, many of the accusations would prove to be quite accurate and it has remained a significant source of information on Japan's human experiments.

For the United States' scientists and investigators, the human subjects of the experiments seemed to matter little, what was important was the obtaining of information that might help the country in the event of war with the Soviet Union. The United States conducted human experiments of its own from 1922 until the 1960s, which helps explain why they had little issue

with offering immunity to people who had also conducted human experiments. The US military used men like Master Sergeant James Stanley to test chemical weapons and drugs at the Edgewood Arsenal in Maryland.²³⁴ The tests permanently damaged Stanley physically and emotionally, resulting in the loss of his career in the military and the loss of his marriage.²³⁵ The Supreme Court ruled Stanley's rights had not been violated after they considered his lawsuit against the government.²³⁶ The belief that the needs of the nation came before the individual had allowed scientists in the United States to experiment on humans, just as the scientists in Japan believed that their countries needs came first. Racism was not the only factor, but it played a huge role in the justifications for experiments for many scientists like Ishii Shiro. Most of Japan's victims were Chinese and many people in the United States held strong racist attitudes towards non-whites, so there was no real moral conflict with using the information from Japanese experiments in the eyes of a government preparing for a future war. The Soviet Union was also very active in trying to capture Japanese scientists to bolster its own biological weapons programs.

Along with the United States and Japan, Nazi Germany also conducted human experiments at concentration camps like Auschwitz, Dachau, and Dora.²³⁷ One of the most infamous of these doctors of murder was Dr. Josef Mengele. He had a particular affinity for studying twins but this was because of his own scientific curiosity into genetics and the nature of twins. In this respect, he and others were similar to Japan's Unit 731. They conducted experiments they considered interesting and fun but held little or no scientific value. The Nazis

²³⁴ *UNITED STATES, et al., Petitioners, v. James B. STANLEY.*

²³⁵ *Ibid.*

²³⁶ *Ibid.*

²³⁷ Dower, 80-81.

had a biological weapons program and conducted experiments, but many of their experiments were focused on concepts of race and racial hygiene. Far more important to the Nazis was the elimination of people considered undesirable. These groups included Jews, Gypsies, homosexuals, mentally challenged persons, and anyone considered anti-social or political dissidents. After World War II, during the Nuremberg Trials, many Nazis were rounded up and punished. Many of the Nazis prosecuted were either high profile leaders of the Nazi party or individuals who committed crimes but had nothing to offer the Allies. Like the Japanese scientists of Unit 731, many Nazi scientists, such as Wernher von Braun, received immunity from any involvement in crimes against humanity. The United States' first priority was gaining any knowledge enemy scientists held in order to have an advantage of the Soviet Union in the event of possible future conflict.

Like Mengele and other Nazi scientists, the Japanese scientists did not just experiment for practical reasons. Often the motivation for these experiments was scientific curiosity or just because it was fun. For example, the Japanese did experiments where they would see how long it took a person to die from electrical shock.²³⁸ They would change voltage and amperage and record the results. In one such experiment, the victim simply burned to death.²³⁹ Victims would die in extreme agony for the curiosity of the scientist and the tests were pointless from a purely scientific point of view because it was well known that electricity could kill. Other experiments would involve removing a victim's hands and then sewing them back onto the body but on the opposite side, with the left hand on the right arm and the right hand on the left arm.²⁴⁰ Other

²³⁸ Barenblatt, 78.

²³⁹ Harris, 34.

²⁴⁰ Barenblatt, 78.

experiments had a defined purpose, such as when Japanese scientists attempted blood transfusions using horse blood.²⁴¹ The scientist conducted experiments with radiation, as well as the infamous frostbite experiments for which a special building was constructed at Ping Fan so they could be done all year round.

Ultra-nationalist Japanese viewed non-Japanese as inferior and often described non-Japanese as animals or people with dirty, inferior souls. In the view of the Japanese scientists, the *maruta* they murdered were little more than logs whose only value was in the potential for important scientific discovery. The racist attitudes of the scientists informed their ability to murder. They viewed their subjects as precious scientific material, as objects of study, but not as humans on a level equal to themselves. It was the “proper place” of the *maruta* to be used as the mighty Yamato race saw fit. If experiments on humans could advance the goals of Japan, then it was considered necessary to conduct those experiments and the victims deserved to die. There are some examples of Japanese showing remorse for their victims, more notably among the non-scientists, including suicides because of guilt, but these instances were rare. For the most part the victims were viewed as scientific material and were treated as such. Each prisoner had a number and was only kept alive for as long as they were considered useful, which was generally just a few months. These attitudes spoke to a wider problem with Japan’s scientific community of the time. These men were raised in an atmosphere, which considered non-Japanese to be non-human or sub-human at best. This was typified by the use of the word *maruta* to describe the prisoners at Ping Fan. The term *maruta* labeled the victims as being non-human, no more than

²⁴¹ Barenblatt, 79.

objects or lab rats. By stripping an individual of their humanity, it became easier for scientists to murder and the more they murdered the easier it became.

For Yuasa Ken, the first time he killed he says it was difficult, but he would go on to dissect fourteen people and he said every time it got easier, and when he raped the comfort women in his mind he was just paying for services.²⁴² Nakagawa Yonezo characterized the attitude of Ishii and many other doctors for whom ultra-nationalism was a major driving force. Nakagawa was a student at Kyoto Imperial University in 1945 when an army doctor who was the instructor told him and his class, “medicine is not for healing the sick and injured...medicine itself must become a weapon.”²⁴³ Ishii shared this same view of medicine. For him and others medicine was a weapon to be used to further the goals of the nation. Biological weapons, Ishii believed, were the ultimate expression of this. They were a weapon that could kill indiscriminately, silently, and without ever being seen. Biological weapons cause fear and anxiety in the enemy, killing soldier and civilian alike as the disease spreads without mercy. It would also feed his own ego and sense of self-importance, allowing him to project his own sense of power and control because he was the driving personality behind Japan’s biological weapons program.

From the inception of Japan’s biological warfare research program in 1931 to its end in 1945, Ishii was one of the principal actors. The program would have survived without him as others were driven onward by their ultra-nationalist beliefs. The program was part of a larger machine of human exploitation though this does not diminish its significance or the significance of Ishii in the carrying out of the aforementioned crimes. The legacy of Unit 731 is a sordid one,

²⁴² Yuasa, 210-211.

²⁴³ Nakagawa, 221.

with their scars left across China, Manchukuo, and the Pacific nations and anywhere else they or others like them operated. The unit is still a source of contention between China and Japan. The Japanese government would like to forget and move on from the unit's history while many Chinese believe that at the very least an official apology is owed. Such an apology has not been forthcoming. Neither have reparations for the families of the victims been forthcoming which was not the case with Germany who paid large sums of reparations.

Viewing Ishii's Unit 731 in the larger context of Japan's Imperial war machine does not diminish its role. If anything, it enhances the role he and his unit played by exposing the network Ishii built across Japan. Placing Unit 731 into the context of Japan's racist views of the early 20th century is important to understanding the motivations, which drove seemingly normal people to commit crimes against humanity. It is necessary to view Unit 731 under the proper context to gain a fuller understanding of the crimes committed. What Japan did was not unusual when viewed alongside the actions of Germany and the United States. World War II is sometimes described as a race war and the description fits when one views the attitudes held by Japan, Germany, and the United States. Germany was motivated by its hatred of Jews and the desire to create a master race. The United States viewed Japan as a dangerously cunning, monolithic society of sub-humans whose only goal was the destruction of white civilization. Imperial Japan believed the Yamato race was the true master race, which needed to be purified with blood in the struggle to obtain its rightful position through war. World War II was fueled by racial hatred and violent nationalism, and this gave justification for the human experiments perpetrated by Unit 731.

REFERENCES

Primary

- Cunliffe, William H. *Select Documents on Japanese War Crimes and Japanese Biological Warfare, 1934-2006*. Washington, D.C.: National Archives and Records Administration
- Gold, Hal. *Unit 731: Testimony*. Tokyo: Yenbooks, 1996.
- Onishi, Norimitsu, "Japan Apologizes to China for Injuries From Remnants of War," *New York Times*, August 13, 2003.
<http://www.nytimes.com/2003/08/13/world/japan-apologizes-to-china-for-injuries-from-remnants-of-war.html?src=pm> (accessed February 17, 2013).
- "Mustard gas victim dies in hospital," *China Daily*, August 23, 2003.
http://www.chinadaily.com.cn/en/doc/2003-08/23/content_257579.htm (accessed February 17, 2013)
- UNITED STATES, et al., Petitioners, v. James B. STANLEY*. 483 U.S. 669 (107 S.Ct. 3054, 97 L.Ed.2d 550) (Supreme Court, 1987)
<http://www.law.cornell.edu/supremecourt/text/483/669> (accessed February 26, 2013).
- USA vs. Iwanami Hiroshi et al.* Navy Case 48-35-1 Part 1 (Judge Advocate General, 1947)
www.fold3.com (accessed February 27, 2013).
- USA vs. Kajuro, Aihara et al.* Case #288 (Judge Advocate General, 1948)
<http://home.comcast.net/~winjerd/IMTFE-Docket288.pdf> (accessed February 26, 2013).
- USA vs. Shimpei Asano et al.* A17-19(4), Vol. 1 of 2 (Judge Advocate General, 1947)
www.fold3.com (accessed February 27, 2013).
- War Department, Military Intelligence Service. *Enemy Capabilities for Chemical Warfare* (15

July 1943) Washington, Special Series, No. 16., MIS 461. (Some identifying information in select documents was redacted upon declassification).

Secondary

Books

Arendt, Hannah. *Eichmann in Jerusalem: A Report on the Banality of Evil*. New York: Penguin Books, 1963.

Annas, George J. and Michael A. Grodin, ed. *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation*. New York: Oxford University Press, 1992.

Barenblatt, Daniel. *A Plague Upon Humanity: The Secret Genocide of Axis Japan's Germ Warfare Operation*. New York: Harper Collins Publishers, 2004.

Gold, Hal. *Unit 731: Testimony*. Tokyo: Yenbooks, 1996.

Guillemin, Jeanne. *Biological Weapons: From the Invention of State-Sponsored Programs to Contemporary Bioterrorism*. New York: Columbia University Press, 2005.

Harris, Sheldon H. *Factories of Death: Japanese Biological Warfare in 1932 – 45 and the American Cover-up*. London: Routledge, 1994.

Harris, Sheldon H. "The American Cover-Up of Japanese Human Biological Warfare Experiments, 1945-1948." In *Science and the Pacific War: Science and Survival in the Pacific, 1939-1945*, ed. 253-269. Dordrecht: Kluwer Academic Publishers, 2000.

Hunt, Linda, *Secret Agenda: The United States Government, Nazi Scientists, and Project Paperclip, 1945-1990*. New York: St. Martin's Press, 1991.

Kleinman, Arthur, Jing-Bao Nie and Mark Selden, ed. *Japan's Wartime Medical Atrocities: Comparative inquiries in science, history, and ethics*. New York: Routledge, 2010.

Lifton, Robert Jay. *The Nazi Doctors: Medical Killing and the Psychology of Genocide*. New York: Basic Books, Inc., Publishers, 1986.

Williams, Peter, and David Wallace. *Unit 731: Japan's Secret Biological Warfare in World War II*. New York: The Free Press, A Division of Macmillan, Inc., New York, 1989.

Journal Articles

Conroy, Hilary. "Japanese Nationalism and Expansionism," *The American Historical Review*, Vol. 60, No. 4 (Jul., 1955): 818-829.

Ellis van Courtland Moon, John. "Chemical Weapons and Deterrence: The World War II Experience." *International Security*, Vol. 8, No. 4 (Spring, 1984): 3-35.

Notehelfer, Fred G. "Kotoku Shusui and Nationalism," *The Journal of Asian Studies*, Vol. 31, No. 1 (Nov., 1971): 31-39.

Wachutka, Michael. "A Living Past as the Nation's Personality': 'Jinnō shōtōki,' Early Shōwa Nationalism, and 'Das Dritte Reich,'" *Japan Review*, No. 24 (2012): 127-150.