IS UNEXPLODED WORLD WAR II AMMUNITION ABANDONED PROPERTY? ETHICS AND THE LAW IN MICRONESIA

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ABSTRACT

During World War II the atolls and islands of Micronesia were the focus of military development, extensive fighting and bombardment. By the end of that war the islands were littered with unexpended Japanese ammunition and with US ordnance that had failed to explode on impact. This paper examines the legal and moral ownership of that ammunition, as it has a bearing on its management in the modern historic preservation context.

INTRODUCTION

The Pacific War (1941-1945) has seen the development of several permanent and temporary military bases on several islands and atolls in the central and western Pacific Ocean by both Japanese and Allied forces (Spennemann 1992a-b; Look and Spennemann 1993). Vast quantities of ammunition, ranging from cartridges for small arms to high explosive shells for large coastal defence and naval guns, as well as aerial bombs were moved to the bases and stored in concrete bunkers or open bomb dumps. Small quantities were stored in ammunition ready magazines at the gun emplacements, where they were needed. Some of the ammunition was used up by the Japanese defenders, but much remained unexpended as the guns for which it had been stored were destroyed and made inoperable by U.S. attacks (cf. USSBS 1947 and interviews therein).

In addition, enemy action delivered substantial quantities of ordnance on the Japanese bases. There is no authoritative table that compiles the total of the ammunition used by the US forces. We have some data compilations for the Marshall Islands. Table 1 compiles some of that information for the general bombardment, and
Table 2 provides the data for the bombardment during the invasion of Kwajalein and Enewetok. It should be noted that the data presented there are near complete only for the atolls of Jaluit, Maleolap and Wotje. For the other islands and atolls, these figures are *minimum figures* only. Especially as far as the assault on Kwajalein and Enewetok are concerned, such data are incomplete.

Table 1. Tonnage of high explosive bombs, naval shells, napalm and rockets directed by U.S. Army, Navy and Marine units against targets in the Marshall Islands, February 1942-August 1945, ranked by tonnage delivered against targets. (Invasion bombardment excluded) (Compiled from: USSBS 1947; SCU 1945)

7th AAF	USN carriers	USN land	Fourth Marine Air Wing	Naval

Atoll	Bombs	Bombs	Napalm	Bombs	Bombs	Napalm	Rockets	Gunfire	Total
Wotje	1236.10	166.10		213.10	1861.20	10.60	5.07	1016.53	4508.70
Mile	786.10	239.35		97.50	2236.41	150.27	3.81	453.00	3996.44
Maloelap	1128.00	227.77	29.00	219.00	1119.46	41.85	4.77	864.88	3634.73
Jaluit	1374.00	49.50		232.20	1425.38	54.20	7.32	6.00	3148.60
Enewetak	?	?	?	?	?	?	?	?	?
Kwajalein	315.20	?	?	?	?	?	?	?	?
Majuro	15.00								15.0
Rongelap	11.40								11.4
Aur	8.50								8.5
Arno	5.90								5.9
Likiep	3.00								3.0
Ujelang	3.00								3.0
Total	4922.5	682.72	29	761.8	6642.45	256.92	20.97	2340.41	15335.37

Table 2. Tonnage of high explosive bombs, naval shells, napalm and rockets directed by U.S. Army, Navy and Marine units against targets on Kwajalein and Enewetak, Marshall Islands, during the invasion of these islands. (Compiled from: Crowl and Love 1955; Heinl and Crown 1954; USMC nd)

Atoll	7th AAF Bombs	US Navy Bombs	US Navy Gunfire	US Army Gunfire	Total
Kwajalein					
Roi-Namur	23	16 +	1434.5 1220.6		
Kwajalein I.	15		2656.5	1847.4	
Northern small islands			2677.4	43+	
Southern small islands		33	3926.7	389.9+	
Total		274.5			
Enewetak					
Parry		99	944.4	245	
Engebi		?	1179.7		
Enewetak I		?	204.6	—	
Smaller islands			16.2		
Total					

IMAGE REMOVED	IMAGE REMOVED
Figure 1. Japanese Weaponry lined up for removal after capitulation, Wake Island (Photo: US National Archives 80-G-346844)	*Figure 2. Pre-invasion bombardment of Roi, Kwajalein Atoll (Photo: US National Archives 80-G-216620)*
IMAGE REMOVED	IMAGE REMOVED

Figure 3. US Artillery personnel land ammunition during the invasion of Kwajalein Island (Photo: Department of Defence Photo (Army) 324729)	*Figure 4. US bomb storage dump on Kwajalein Island soon after invasion (Photo: US Navy Historical Centre K-14581)*
IMAGE REMOVED	
Figure 5. Impact of prolonged aerial bombardment on by-passed atolls. The northern tip of Emidj Islet, Jaluit Atoll. The photo at the left was taken in November 1943 prior to the commencement of long-distance bombardment, the photo on the right six months later in May 1944 (Photo: Heinl and Crown 1954, p.156)	
IMAGE REMOVED	IMAGE REMOVED
Figure 6. A 127mm dual purpose gun emplacement on Mile (Photo: Dirk HR Spennemann)	*Figure 7. Unexpended 127mm ammunition with casing, shell and intact fuse (Photo: Dirk HR Spennemann)*
IMAGE REMOVED	IMAGE REMOVED
Figure 8. Several 127mm casings (shells removed) accumulated on Wotje (Photo: Dirk HR Spennemann)	*Figure 9. Aerial bomb with fuse still intact at the south-western beach of Wotje (Photo: Dirk HR Spennemann)*

Most of this ammunition was either expended during military action or was removed after the war. Whilst most of the bombs and shells exploded as intended, some did not. An US intelligence report following the capture of Kwajalein Atoll, Marshall Islands, by US forces indicates that approximately 50% of the naval shells failed to detonate on impact, an observation reinforced by a statement by the commander of the Japanese garrison made after surrender of Taroa and Maloelap Atoll (Kamada 1947). Upon impact several of these were buried into the soft sand.

Ordnance Removal

In the closing months of 1945 the US forces removed all remaining and easily accessible Japanese ordnance from the ammunition dumps on Wotje, Mile, Taroa and Jaluit. Most of these dumps were still substantial at the time of surrender. (USSBS 1947). Although the US apparently took great care of the removal of Japanese ordinance from the major stores, there is still a fair amount of ordinance lying about which is definitely of Japanese origin. The information about previous ordnance removal operations, concerning themselves with scattered ammunition, however, is very limited. Two years after the war, the US Army sent an ordnance removal team to the islands formerly held by Japanese garrison troops. This team, consisting of one ensign, two qualified enlisted men and a local interpreter, worked on Wotje, Jaluit, Taroa, Maloelap, and Mile (Richard 1957: 1124). Mile was not visited until spring 1947, and Wotje was not visited until much later, when the vegetation had largely recovered and a great deal of ammunition may have become hidden under scrub.

Example: Mile Atoll

The situation on Mile may serve as an example: despite the two previous missions, Mile Island as well as Bikenen Island, Mile Atoll, were uninhabited in early 1952, as the ammunition scattered on the island posed to great a danger to human life (DA MI 1952). Following reports of unexploded ammunition, a third ordnance removal mission was ordered by the U.S. Navy in 1954, covering Taroa, Maloelap Atoll, and

Mile Island, Mile Atoll (CUSPF 1954). An assessment of the situation on Mile Atoll in 1955 revealed that most of the islands need clearing of unexploded ordnance and replanting, since people are still unable to return there for settlement and live on other islands of Mile Atoll (Majo 1955). Following further reports of unexploded ammunition, a yet another ordnance removal mission was dispatched in September 1958 from the U.S. Navy Station Kwajalein to 'sanitize' Wotje and Mile (EODO 1958). Yet another major ordnance removal mission took place in early 1969, covering Wotje (completed 13 April 1969), Jaluit [Akmann, Bok-en and Bijet Islands] (1 May 1969), Mile [Mile and Tokowa Islands] (16 May 1969) and Maloelap [Taroa, Ollot and Tian Islands] (1 June 1969) (CNOSC 1969a). On Mile 613 "known" pieces" (as shown to the team by some islanders and the Peace Corps volunteers) and 2594 other pieces of ordnance were destroyed during the 1969 mission. The co-operation with the locals during this removal mission was not the best, it appears.

During a survey of Mile Island the EOD team found 11 1/25 55-gallon drums of picric acid, some of which already in a crystallised form. On returning the following day in order to remove and destroy these drums, only ten drums were present. The missing 1½ drums could not be located and none of the locals would be of assistance. The report mentions that bomb fishing was of great importance to the locals and that they would not volunteer the whereabouts of unexploded ordnance (CNOSC 1969b). Despite initial clean up and a number of subsequent ordnance removal missions there is still an abundance of ammunition located on the islands. Some unexpended ammunition still remains in place today next to the guns for which it was intended (figure 1–2) (cf. Spennemann et al 1990); while unexploded ordnance can be found on the island and along their shores (figure 4).

Scrap metal drives of the 1970s (Look and Spennemann 1993) as well as the utilisation of explosives for bomb fishing (Hezel and Graham 1997) have further scattered the ordnance by removing the copper-alloy casings (figure 3) and scattering the shells. Thus much of the ammunition is found during normal vegetation clearing in the course of agriculture/gardening and during heritage conservation management actions (cf. Look and Spennemann 1993; Spennemann 1998a).

The question arises, who owns the unexploded ammunition. By extension, and more importantly, we need to clarify the question as to who is legally and morally responsible for its safe disposal. The rest of this paper will highlight some of those issues.

POLITICO-LEGAL BACKGROUND

Regarded as moveable cultural resources dating to World War II are all *impermanent* alterations to the landscape, such as aircraft, trucks, bombs and guns and parts thereof (but not the gun emplacements).

While the discussion pertains to all of Micronesia and beyond, some of the case examples stem from the Republic of the Marshall Islands. The Marshall Islands had become a German protectorate in 1885 following an agreement with Spain (Spennemann 1998b). Subsequent to the Spanish-American War of 1898 Spain sold the remainder of its Micronesian possessions (Carolines, Palau and the Marianas) to Germany. Thus, by 1898 all of Micronesia formed part of the German empire (Spennemann 1999), with the possible exception of Guam and Wake (Spennemann 1998b), which were administered by the US.

During World War I the German colonies in Micronesia, with the exception of Nauru, were annexed by Japan, which was given the administration of the area as a Class C mandate of the league of Nations in 1921 (Wright 1930). The Japanese managed the islands until the capture by the US forces in World War II or until Japan's formal surrender on 2 September 1945, whichever came earlier. Following the war, the area was handed to the USA as a Trust Territory of the Pacific Islands (TTPI) of the United Nations. The TTPI period ended when the Republic of the Marshall Islands (CFA RMI 1982) and the Federated States of Micronesia (CFA FSM 182) signed the Compact of Free Association (CFA) in 1982 and the Commonwealth of the Northern Marians became a Commonwealth in 1978 (CNMI 1978). The Republic of Palau signed the CFA in 1993 (CFA Palau 1993)

The discussion presented in this section draws almost entirely upon the existing and pertinent legal literature, such as the *Constitution of the Republic of the Marshall Islands*, the *Marshall Islands Revised*

Code of 1989 and the *Compact of Free Association between the Government of the United States and the Government of the Republic of the Marshall Islands* (1982), which have binding value; the findings and rulings of the Trial and the Appellate Divisions of the High Court of the Trust Territory as reported in the *Trust Territory Reports* vols. 1 to 8, which are regarded to possess strong persuasive value; and the cases cited and opinions expressed in *American Jurisprudence 2nd edition*, which are regarded to possess persuasive value only.

Cases heard by the Trial and the Appellate Divisions of the High Court of the Trust Territory sitting in the Marshallese Islands District obviously possess a stronger persuasive value than cases adjudged for other districts of the T.T.P.I.; nevertheless, the following discussion also presents cases heard in the Mariana, Palau, Truk, Ponape, Kosrae and Yap districts, if the issues discussed therein have merit for the overall argument and are indicative of the reasoning of the T.T.P.I. courts.

Drawn upon for historical legal information were the *Trust Territory Revised Code of 1966*, the *Treaty of Versailles* (1919), the *Covenant of the League of Nations* (1919), the *Decision of the Council of the League of Nations relating to the Application of the Principles of Article 22 of the Covenant to the North Pacific Islands* (1920), the *Charter of the United Nations* (1945), and the *Trusteeship Agreement for the Trust Territory of the Pacific Islands* (1947). Q. Wright's excellent volume on the *Mandates under the League of Nations* was also extensively consulted (Wright 1930).

Following military defeat in the Marshall Islands in 1944, and the unconditional surrender of Japan on 2 September 1945, Japan ceased to exercise any authority in the Mandated Territory (Richard 1957, p. I 424), which was placed under U.S. military administration; after the establishment of the United Nations the Micronesian Islands were declared a strategic trust and placed under the trusteeship of the United States (text: Heine 1974, pp. 188-191). The U.S. government validated all Spanish, German and Japanese laws, ordinances, regulations etc. still in existence throughout the area covered by the Trust Territory unless replaced by T.T.P.I. law (*Code of the Trust Territory of the Pacific Islands 1966*. § 23.) Following the vesting of the trusteeship over Micronesia on the United States, the U.S. regarded themselves as a succeeding sovereign and thus as the successor to all title previously held by the Japanese government—just in the same way as the Japanese government had regarded itself as the succeeding sovereign and thus as the successor to all title previously held by the Imperial German government (*Cf.* sequence of arguments in *Ochebir v. Municipalty of Angaur* 5 T.T.R. 162).

All property discussed in this paper was, at the time of its production and use, either property of the Imperial Japanese Government or property of the Government of the United States.

ABANDONED PROPERTY

All moveable cultural resources are regarded as property, and hence, the property laws apply in the discussion. The principle of abandoned property has been used in a court case similar to the discussion (see below). According to U.S. law, which is commonly used as the guiding principle if no directly applicable law exists in the Micronesian states, the definition of the ownership of abandoned property is as follows:

> Abandoned property is that to which the owner has voluntarily relinquished all right, title, claim and possession, with the intention of terminating his ownership, but without vesting it in any other person and with the intention of not claiming future possession or resuming the ownership, possession, or enjoyment. (1 Am. Jur. 2d, 3-4, Abandoned Property § 1)
>
> Property which is abandoned by the owner who relinquishes it with the intention of terminating his interest in and without intending to vest ownership in another goes back into a state of nature, or, as more commonly expressed, it returns to the common mass of things in a state of nature and becomes subject to appropriation by the first taker, occupier, or finder who reduces it to possession. Such person thereupon acquires an absolute property therein as against both the former owner and the person upon whose land it happens to have been left."

> (1 *Am. Jur.* 2d, ABANDONED PROPERTY § 18).

However, a property cannot:

> be considered lost or subject to finder's claim, where by owning the land, the [landowner] had a constructive ownership of the [property] and where by the [landowner] demonstrated its intent to exercise dominion over the [property](70 *Am.Jur* 2d, 1077, SHIPPING §974; quoting *Klein v. Unidentified Wrecked and Abandoned Sailing Vessel* [CA11 Fla] 758 F. 2d 1511).)

Abandoned property needs to be carefully distinguished from the principle of lost property or mislaid property. “Lost property is defined in law as property which the owner has involuntarily parted with through neglect, carelessness, or inadvertence, that is, property which the owner has unwittingly suffered to pass out of his possession and of whose whereabouts he has no knowledge.” “...the essential test of lost property in contemplation of law is whether the owner parted with the possession intentionally or casually or involuntarily; only in the latter contingency it may be lost property.” “Mislaid property is property which the owner voluntarily and intentionally laid down in a place where he can again resort to it, and then forgets where he puts it” (1 Am. Jur. 2d, 4, Abandoned Property Section 2).
Once abandoned, the previous owner of the property “cannot thereafter reassert his rights of ownership to the prejudice of those who may have in the meantime appropriated the property” (1 *Am. Jur.* 2d, 22, ABANDONED PROPERTY Section 24.).
In addition, the mere fact of finding or locating the abandoned property does not constitute an act of reduction to possession:

> Under law of finds, finder acquires title to lost or abandoned property by occupancy, that is, by taking possession of property and exercising dominion and control over it; finder does not acquire title merely on strength of his discovery of lost or abandoned property.
>
> Under the principles of law of finds, persons who actually reduce lost or abandoned objects to possession and persons who are actively and ably engaged in efforts to do so, are legally protected against interference form others, whereas persons who simply discover or locate such property, but do not undertake to reduce it possession, are not. (*Treasure Salvors, Inc. v. Unidentified Wrecked and Abandoned Sailing Vessel* [CA5 Fla.] 640 F2d 560 (1981).

The state may decide to step in and take into possession abandoned property, either into protective custody, or into outright possession, since, according to U.S. law, it is held that “every state has power to take charge of apparently abandoned or unclaimed property, but it may not escheat such property administratively without judicial action.” (1 *Am. Jur.* 2d, 27, ABANDONED PROPERTY § 33. See also Section 6 Right of State to Property).

As escheat and forfeiture are not favoured by the law, any such steps will be carefully scrutinised and the case for escheat needs to be strong (1 *Am. Jur.* 2d, 9, ABANDONED PROPERTY Section 6). In any case, however, for escheat or any steps for possession to occur, it needs to be proven that the abandonment occurred intentionally. Such abandonment:

“involves a conscious purpose and intention on the part of the owner. and necessarily involves an act by which the possession is relinquished, and this must be a clear an unmistakeable affirmative act indicating a purpose to repudiate the ownership. mere relinquishment of the possession of a thing is not an abandonment of it in the legal sense of the word, for such an act is not wholly inconsistent with the idea of continuing ownership; the act of abandonment must be an overt act or some failure to act which carries the

implication that the owner neither claims nor retains any interest in the subject matter of the abandonment." and ..."[t]he act of relinquishment of possession or enjoyment must be accompanied by an intent to part permanently with the right to the thing; otherwise there is no abandonment." (1 *Am. Jur.* 2d, 16-17, ABANDONED PROPERTY Section 16).

"As a general rule, abandonment of, or an intention to abandon, property is not presumed. Especially this is true if the conduct of the owner can be explained to be affirmatively with a continued claim. An abandonment must be made to appear affirmatively by the party relying thereon, and the burden is on upon him who sets up abandonment to prove it by clear, unequivocal and decisive evidence" (1 *Am. Jur.* 2d, 39, ABANDONED PROPERTY Section 36).

PROPERTY EMBEDDED IN THE EARTH

While the determination of the finders right to abandoned property is unaffected by the ownership of the land on which the property is found, there is one notable exception. According to U.S. law, the finder of "property which is embedded in the soil, but which is not treasure-trove, acquires no title thereto, for the presumption is that the possession of the article found is in the owner of the locus quo." (1 *Am. Jur.* 2d, 20, ABANDONED PROPERTY § 22. – also see ruling in *Klein v. Unidentified Wrecked and Abandoned Sailing Vessel* [SD Fla] 568 F. Supp. 1562 [1983] where this principle was applied to submerged bottom lands).

Following from this, therefore, the owner of the land the property is found in has constructive ownership and is thus free to dispose of it in any way he sees fit, the only exception to which is provided by the principle of treasure trove. This, of course, begs the questions as to who owns an unexploded bomb that penetrated the ground and that is now embedded in the ground.

TREASURE TROVE

A variation of the principle of abandoned property is that of *treasure trove*:

> [T]reasure-trove is any gold or silver in coin, plate or bullion found concealed in the earth or in a house or other private place, but not lying on the ground, whose owner is unknown.
> Treasure trove carries with it the thought of antiquity; to be classed as treasure trove, the treasure must have been hidden or concealed so long as to indicate that the owner is probably dead or unknown (1 *Am. Jur.* 2d, 6, ABANDONED PROPERTY Section 4*).*

According to U.S. jurisprudence, and in the absence of specific legislation therein as far as the U.S. are concerned (as opposed to other countries, such as England, for example, where treasure-trove is the sole ownership of the sovereign, i.e. the crown), the ownership of the treasure-trove rests with the finder "against all the world except the former owner." (1 *Am. Jur.* 2d, 20, ABANDONED PROPERTY Section 21). With the lack of pertinent legislation, it has to be assumed that courts in the Marshall Islands would follow the U.S. examples. It is within the realm of the legislative of the Republic of the Marshall Islands to pass laws similar to those of other countries, wherein all antiquities and treasure-trove are the sole property of the sovereign (see below).

APPLICATION OF THE PRINCIPLE OF ABANDONED PROPERTY

The principle of abandoned property has been used in a court case (involving a World War II aircraft)

pertinent to the discussion at hand. The question arises to what extent the principle of abandoned property is applicable in the issue of World War II materiel. Assuming the principle is seen as valid, then anyone who clears an historic aircraft of vegetation and other debris or any other moveable object for that matter, obtains the property rights to this object.

It remains to be a matter to be decided in court whether letting an aircraft again become overgrown with vines after having initially cleared it of its vegetative cover — and thus having reduced it to possession (as is argued in *N. Hermios, C. Lavin and C. Wall versus I. Tartios for himself and his lineage.* H.C.T.T. App. Div. 8 T.T.R. 540 [1986]) — constitutes an act of abandonment. It appears that the owners need to express the intention to abandon the aircraft and to "relinquish the property with the intention of terminating his interest in it" (*American Jurisdiction* 2d, ABANDONED PROPERTY Section 18). In a pertinent case tried before the courts this fact was not established and the ownership of the property remained with the person/lineage who had cleared the aircraft (*Hermios v. Tartios* 8 T.T.R. 540-541).

By the same token, however, it needs to be established beyond reasonable doubt by anyone claiming the rights as a first taker, occupier or finder, that the original owner, in that case the Imperial Japanese Government, on most Micronesian bases represented by the Imperial Japanese Navy, or its legal successor as far as property is concerned, *i.*e. the T.T.P.I., in fact relinquished the property with the intention of terminating its interest in it.

> As a general rule, abandonment of, or an intention to abandon, property is not presumed... An abandonment must be made to appear affirmatively by the party relying thereon, and the burden is upon him who sets up abandonment to prove it by clear, unequivocal, and decisive evidence. (1 *American Jurisdiction* 2d, 29, ABANDONED PROPERTY Section 36).

IS WAR MATERIEL FOUND ON FORMER JAPANESE BASES ABANDONED PROPERTY?

There is a decision of the Appellate Division of the High Court of the Trust Territory regarding the ownership of a Japanese Mitsubishi A6M "Zero" aircraft which had been taken from Taroa Island, Maloelap Atoll, in February 1979 for shipment to the USA (*Hermios v. Tartios* 8 T.T.R. 540-541). While the court case mainly revolves around the identity of the specific aircraft and the fact from which 'wato' (land allotment) the aircraft actually came, the case also touches upon the question of ownership and is thus pertinent for the present discussion. An aircraft was found on Taroa and was cleared of the surrounding vegetation. The aircraft was later on transported to Majuro for sale overseas by person(s) other than those clearing the aircraft of vegetation. Not until then the ownership of the aircraft was specifically claimed or disputed. Based on evidence presented, Chief Justice Munson ruled that the principle of abandoned property (see above) applied in this case and that the aircraft be owned by the person(s) who initially cleared it of all vegetation and thus reduced it to its possession (*Hermios v. Tartios* 8 T.T.R. 540-541).

As mentioned above it needs to be established beyond reasonable doubt that the original owner, or its legal successor has relinquished the property with the intention of terminating its interest in it. It appears very doubtful whether this fact can be established:

As far as can be made out, the Imperial Japanese Navy never relinquished ownership intentionally. In fact, as can be documented on other occasions, damaged aircraft were kept to be cannibalised for spare parts (USSBS 1947). The fact that the Japanese garrison on Taroa did not surrender until September 5th, 1945, that is 20 days formal after the call for surrender by the Japanese Emperor on August 17, 1945, indicates that the Japanese atoll commander of Taroa, Captain Kamada, Shoshi, IJN (Flag No. 492) employed by and thus acting on behalf of the Imperial Japanese Navy retained possession of the atoll and therefore ownership of all military property. The Japanese commanding order had been to keep those Japanese garrisons by-passed by the US forces, such as Taroa, capable of receiving a relieving force in case of a counter-offensive (USSBS 1947). After the Japanese surrender the atoll *all* alien property was taken into custody by the U.S. Navy and later claimed by the T.T.P.I. government by virtue of the principle of *mutatis*

mutandis and the transfer of ownership of the looser of a war to the winner. The *Code of the Trust Territory of the Pacific Islands* (1966 Section 532) defines *alien property* as all -

> property situated in the Trust Territory formerly owned by private Japanese national, by private Japanese organisations, or by the Japanese Government, Japanese Government organisations, agencies, Japanese Government quasi corporations or government-subsidized corporations including "tangible and intangible assets."

Therefore, it needs to be established that the T.T.P.I. government intentionally relinquished ownership in Japanese war materiel. There are several indications to the contrary: After the war an application by Japanese companies to salvage the ships Japanese ships sunk in Chuuk (Truk) lagoon was refused (*Pacific Islands Monthly* November 1953. Page 122).
Given the state of war in 1944 during the occupation of most of the Marshall Islands by U.S. forces and given the terms of surrender of the individual Japanese garrisons in the Marshall Islands (see below) all weapons and ammunition had to be surrendered to the U.S. authorities. Since these weapons were items of war of a hostile belligerent nation, following capture or surrender, they were rightfully confiscated by the U.S. under the normal terms of the laws of war and thus were owned by the U.S. government. During the 'life time' of the TTPI the US government did not relinquish any of its rights in the property. With the transfer of all U.S. government property to the Government of the Republic of the Marshall Islands as stipulated in the CFA all such weaponry is today owned by the Republic (*Compact of Free Association between the Government of the United States of America and the Government of the Republic of the Marshall Islands* 1982. Title 2: Economic Relations; Article 3: Administrative provisions; section 234). Since it is government property, which falls under sovereign immunity it cannot be considered abandoned and therefore cannot be claimed by the first finder and taker. Therefore, not only the small arms, but also the anti-aircraft batteries and the large coastal defence guns are owned by the Republic, and thus protected from appropriation by individuals. The same applies to Japanese ordnance that is still located at or near the gun emplacements where it was intended to be used.

WHO OWNS UNEXPLODED AMMUNITION?

But the issue is more complex in the context of unexploded ammunition, especially as we have to include the question of ordnance propelled or dropped onto various islands and atolls of the Republic of the Marshall Islands during World War II by the means of naval gunfire or aircraft bombardment. As mentioned earlier, a large number of unexploded, and potentially "live" ammunition can still be found on several atolls of the Marshall Islands. The question of ownership of such resources is of importance not only for purposes of historic preservation of those pieces of ordnance considered to be harmless and encountered in the context of archaeological or historic sites, but also and especially of those pieces of ordnance considered to be still dangerous. While the ethical question on the value of the preservation of such items has been addressed elsewhere (Spennemann 1998a), the question of ownership obviously has a bearing on any obligations to mitigate the danger inherent in such ordnance.
Conceptually, we will have to distinguish between two types of ordnance: expended and unexpended ordnance. *Expended ordnance* is that type of ordnance which has been propelled by any kind gun or tube or has dropped by any kind aircraft or missile against a given target. *Unexpended ordnance* is that type of ordnance which has been stockpiled in a given place or was in transit to such place with the purpose to be propelled or dropped against a target at a later time.

OWNERSHIP OF "EXPENDED" ORDNANCE

Ownership of "expended" ordnance located on land

In general, it can be argued that a person shooting off a rifle round, a naval shell, launching a torpedo or missile/rocket or releasing an airborne bomb, or a person authorised to command other persons to do so, divests him- or herself of this particular piece of property and, furthermore, knowingly and intentionally abandons the ownership of that property "with the intention of not claiming future possession or resuming the ownership, possession, or enjoyment." (1 *Am. Jur.* 2d, 4, ABANDONED PROPERTY Section 1). Following from the fact of intent, it is unlikely that this property can be classified as "lost" or "misplaced" (in the sense of 1 *Am. Jur.* 2d, 4, ABANDONED PROPERTY Section 2). Although somewhat cynically, it can be argued that the fact that any ordnance is propelled or dropped in order to destroy another person's property constitutes an act of intentional vestment of all rights and title in the property represented by the ordnance with the person against the ordnance is aimed at. So far, so good.

However, it can also be argued that all ordnance, shot or dropped, is intended for imminent destruction, that is to explode and thereby destroy itself and other property in the vicinity of the point of impact. It can further be argued that the person divesting himself of such property can reasonably expect that by detonating, the property destroys itself beyond recovery. However, *de facto* not all ordnance detonated, either because the fuse settings were wrong or because the shells or fuses were faulty in one way or another.

Therefore, property abandoned with intent and with the expectation of disappearance is still present. *Who owns it?* The original owner" the person on whose land the property is now located? or the finder? Furthermore, given that the property is potentially very dangerous, what are the obligations, if any, of the original owner to the finder, or the person on whose land the property is now located?

If one argues that the moment the property was shot off or dropped, it was abandoned for all purposes of the law, then the unexploded naval shell represents abandoned property and is therefore the possession of the first taker or finder. However, if one argues that the property was abandoned with the expectation of imminent destruction, then, since the destruction of the property did not take place, the abandonment was incomplete and therefore the ownership appears to be still vested with the person shooting or dropping the shell or bomb.

Ownership of "expended" ordnance submerged

A variation of the above theme is the ownership of that piece of expended ordnance which is found under water. This applies to mines, torpedoes and bombs. As of present, no such item has been found or located in the waters of the Republic of the Marshall Islands, but given that archaeological research and survey-work under water are just developing, it is possibly just a matter of time until such ordnance be discovered.

OWNERSHIP OF "UNEXPENDED" ORDNANCE

Ownership of "unexpended" ordnance

It can be reasonably argued that any unexpended ordnance, which has been stockpiled on land, either in bomb/ammunition dispersal areas, next to gun-emplacements or elsewhere, has been deposited there purposefully with the intent to use it. In the case of Japanese ordnance we can conclude that after the need to use the ordnance had become obsolete, i.e. with the surrender of Japan on September 3, 1945, the owners had forgotten about its existence. Thus, it can be argued that the principle of "mislaid property" applies, because the ordnance had been deposited by

> the owner voluntarily and intentionally. in a place where he can again resort to it, and then forgets [forgot] where he puts [put] it (1 *Am. Jur.* 2d, 4, ABANDONED PROPERTY Section 2.)

Therefore, if the principle of mislaid property applies, then the property should be regarded as still being

in the possession of the former owner, and to some extent also his responsibility.

Ownership of "unexpended" ordnance submerged

Another aspect of the ownership of unexpended ordnance is the ownership of unexploded ordnance encountered in shipwrecks. For example, the Japanese merchant vessel *Toreshima Maru*, sunk by U.S. planes in January 1944 off Taroa Island, Maloelap Atoll, has a large number of unexploded depth charges, still sitting in the tracks at the stern of the vessel.
When the Republic of the Marshall Islands, for the people of Bikini, acquired ownership of all vessels of the "Bikini Fleet" sunk during the nuclear weapons testing (cf. Delgado *et al.* 1991), the agreement between the U.S. government and the Republic of the Marshall Islands entailed that by

> acceptance of such right, title and interest, the Government of the Marshall Islands shall hold harmless the Government of the United States from loss, damage and liability associated with such vessels, ordnance, oil and cable (*Agreement between the Government of the United States and the Government of the Republic of the Marshall Islands for the Implementation of Section 177 of the Compact of Free Association*. Article VI: Resettlement of Bikini Atoll and Conveyance of Property in respect to Bikini Atoll and Enewetak Atoll; Section 2 Bikini Sunken Vessels and Cable).

Effectively, therefore, not only the ownership, but also the responsibility for the unexploded ordnance now rests with the people of Bikini.
Similar provisions were made for the transfer of ownership of the former German warship *Prinz Eugen*, now in Kwajalein Lagoon (*Agreement regarding the Military use and Operating Rights of the Government of the United States in the Marshall Islands concluded Pursuant to Sections 321 and 323 of the Compact Free Association*. Article 9: Miscellaneous).
The CFA does not, however, stipulate the fate of other submerged resources.

OWNERSHIP OF JAPANESE AND U.S. ORDNANCE

For the purposes of this discussion, we will have to distinguish between Japanese ordnance and U.S. ordnance: while the former has been left on the islands/atolls after surrender, the latter has been propelled or dropped onto the island or atoll with an intent to explode and destroy. For the purpose of the argument we will ignore the limited occurrence of Japanese-propelled ammunition on the US bases in the Marshall Islands (e.g. the Japanese response to the US landing on Roi and the like).

Ownership of Japanese ordnance

The determination of the ownership of Japanese ordnance is fairly straightforward: At the time the ammunition was brought onto the atolls it was obviously the property of the Imperial Japanese Government and placed at the disposal of the Imperial Japanese Navy (IJN) who had the control of base command, or by extension of command, of the IJN and Imperial Japanese Army forces stationed there. After surrender, all ammunition became US property:

> In preparation for turning over control of the atoll to the American authorities and in accordance with the Japanese Emperor's directive, and the terms of surrender agreed upon by the Japanese and American Governments, the Japanese Commander will:..
> (3) Collect and deposit in one spot to be designated by the American commander, all arms, weapons, ammunition, explosives and implements of war.

> (9) Prepare a map showing the location of all guns, gun emplacements, ammunition, fuel dumps, radio apparatus, transportation equipment, boats, shops, generators, etc. and prepare an inventory of all such equipment.
> (10) Take steps to prevent destruction of any useable items on the above list. (Grow 1945).

Concurrent with the formal act of surrender all rights and title to the property, stockpiled or not, was vested in the hands of the local commander of the U.S. Armed Forces as the local representative of the U.S. Government. In 1945-47 the US government conducted a clean-up of the bases and a removal of shells and other unexploded items (see above). Any Japanese ordnance still remaining on the islands or atolls continued to be owned by the U.S. government and, in legal terms, can be regarded either as lost or mislaid property. Since, under the *Compact of Free Association*, the U.S. government transferred its property to the Government of the Republic of the Marshall Islands (*Compact of Free Association* Title 2: Economic relations; Article 3: Administrative provisions; Section 234.), all unexploded Japanese ordnance is owned by the Republic. Consequently, it is the responsibility of the RMI government to ensure that such ammunition does not endanger the public at large in general and the landowners, upon whose property the ammunition is located, in particular.
Yet at the same time the Republic of the Marshall Islands government handed back all government-owned land to the traditional owners and all immoveable property and abandoned property located thereon.
Japanese ships and aircraft that were sunk before surrender are not covered under the terms of the surrender document(s) and therefore legally remain the property of the Japanese government as the legal successor of the Imperial Japanese government of the day.
The unexploded ordnance found in submerged cultural resources of Japanese origin, such as ships, as well as isolated submerged Japanese ordnance is still property and therefore also responsibility of the Japanese government if these vessels sank before surrender.

Ownership of U.S. ordnance

The ownership of U.S. ordnance is a slightly different matter: *any* unexpended ordnance, be it submerged, or found on land, for example on former U.S. bases in the Marshall Islands, such as on Majuro Atoll, was and remained the property of the U.S. government; both under the assumption of the principle of lost or mislaid property and under the principle of sovereign immunity. Thus, with the signing of the CFA, such ammunition has become the property of the government of the RMI. While the signing of the CFA transferred the ownership of and thus responsibility for all unexploded ordnance on land to the hands of the RMI government, the ethics of such a transfer are doubtful and shall be explored below
The document facilitating the transfer of the ownership of the vessels in Bikini lagoon specifically mentions that

> the Government of the Marshall Islands shall hold harmless the Government of the United States from loss, damage and liability associated with such. *ordnance*. (Agreement between the Government of the United States and the Government of the Republic of the Marshall Islands for the Implementation of Section 177 of the *Compact of Free Association*. Article VI: Resettlement of Bikini Atoll and Conveyance of Property in respect to Bikini Atoll and Enewetak Atoll; section 2 Bikini Sunken Vessels and Cable. Emphasis added).

This section shows that the US government was well aware of the increasing volatility and threat derived from unexploded ordnance contained in the sunken Bikini Fleet and that it wished to safeguard itself against any damage claims derived from that issue.
The non-Bikini sections of the CFA do not contain such specific provisions. It is quite possible hat the US government was not aware of the level of unexploded ordnance left in the Marshall Islands. By virtue of the specific addressal of the Bikini unexploded ordnance in the CFA and the silence of the same document on all other ammunition, it appears feasible that the U.S. government, although having transferred the

ownership of all its property to the Republic of the Marshall Islands, can still be held liable for any unexploded ordnance.

MICRONESIAN HERITAGE LEGISLATION

Some of these issues have been addressed by the various heritage protection (historic preservation) legislation enacted throughout Micronesia between 1980 and 1991 (Table 3). In addition to the acts, there are a number of executing regulations which govern the administration of the heritage places and items. In Guam, the CNMI and Wake Island, which are integral parts of the Unites States of America, the protective provisions of the United States Historic Preservation Act (1966, amended 2002; 16 U.S.C. 470), also apply. That act also provides protective cover for the Freely Associated States, but only for actions undertaken by, or funded in part or full by US government agencies, or by US programs that receive US government funding for their undertakings.
Furthermore, there are acts that provide special protection, such as the sunken fleet on the bottom of Chuuk (Truk) Lagoon which was protected already during TTPI times as the Truk Lagoon District Monument (Chuuk 1971).

Table 3. Heritage Legislation and Protection Provisions

Country	State/Territory	Year enacted	Protects historic UXO ?
USA	Northern Mariana I	1982	Yes
USA	Guam	1974	Yes
USA	Wake I. (National)	1966 amend 1992	No
Rep Belau		1982	No
Fed States Micronesia	National		Yes
Fed States Micronesia	Kosrae State	1980	Yes
Fed States Micronesia	Yap State	1980 amend 1988	No / Yes(Ntnl)
Fed States Micronesia	Pohnpei State	1991	No / Yes(Ntnl)
Rep Marshall Islands		1991	Yes

While not all acts are constructed alike, the protective cover in most acts comes from an arbitrary time rule, protecting artefacts older than 30 years as in the case of the national FSM Act, or 40 years as in the case of the Republic of the Marshall Islands regulations governing the export of artefacts. The definitions of the acts or regulations are such that unexploded ordnance is protected. The Kosrae Historic Preservation Act does eschew the time rule but defines ‘historic property’ inter alia as an ‘object ... that can be fruitfully used in the archaeological study of Kosrae’s past” (Kosrae 1980 section 4A).
The various Historic Preservation Acts applicable in Micronesia as shown in Table 3 all assume that the location of item is within the state or nation and that jurisdiction exists over the properties in question. While this holds true for all US ammunitions as well as all Japanese ammunitions on the surrendered bases, this premise cannot be upheld for the Japanese munitions contained in vessels and aircraft that were shot down or sunk before surrender, and which are still Japanese government property.

SO WHY DOES IT MATTER?

The problem that has now arisen is that unexploded ordnance especially the unexpended Japanese ammunition next to the Japanese gun emplacements forms part of the cultural locale and part of the

heritage items. Any removal of unexploded ordnance would diminish the authenticity and, above all, the historical integrity of the emplacement. Moreover, the ammunition is in such a bad state of preservation and has such a high degree of volatility that an unexploded ordnance removal by relocation to another place cannot be ordered out of concerns for the safety of the personnel.

It would appear that the Japanese ammunition was made up a variety of inferior alloys, especially as the war progressed and the raw materials became increasingly scarce for the Japanese armament industry. While this had little impact at the time (as the ammunition was meant to be expended and not expected to have a long shelf life) it has become a major issue in the highly corrosive climate of Micronesia, especially on the low-lying atolls of the Marshall Islands (cf. Spennemann and Look 1994; Look and Spennemann 1996). The official advice is not to move that ammunition ands to explode it in place. In most cases the detonation of the ammunition is supposed to be conducted *in situ*. Such an explosion, however, could threaten the survival of the main feature, *i.e.* the gun and its emplacement (cf. Spennemann 1998a).

The increasing volatility of the unexploded ammunition, however, makes the issue of location and removal more pressing. At present much of the removal is done on a case-by-case basis by the US Navy. Yet, the increased volatility of the ammunition also increases the risk for EOD personnel. It can be speculated that commanders will be less likely to make available their personnel as that risk increases.

In such a situation the clarity of the legal status of unexploded ordnance is required and the ethical and moral parameters governing its removal need to be clarified.

WHAT ARE THE ETHICS OF THE SITUATION?

Before we address the ethical issues specific to the problem of unexploded ordnance we need to consider the status of the Micronesian Islands as a participant in the armed conflict of World War II. It can be argued that a belligerent party has to contend with the fall-out and debris of war, especially if that party started the war. In such cases the looser foots the bill according to the adage '*Vae victis.*"

Yet in the case of Micronesia the situation is quite different. The Micronesian peoples did not invite Japan to become their mandate power, they did not invite Japan to develop military bases on their atolls, and they, as a people, had no interest in the outcome of the Japanese war. Nor did they particularly invite the US forces to bomb their atolls and islands to drive out the Japanese (Spennemann 1992b). The Micronesians were metaphorically speaking the mice between the feet of two elephants fighting. Yet it was their land on which these bases were developed and fought over and it was their land that is now still littered with unexploded ordnance.

The Micronesians had little if any recourse to prevent the modification of their land and no option to prevent the use of their land as a battleground. Morally, therefore, the combatant parties an obligation to restore or rehabilitate the land to a useable condition. This certainly involves the removal of the remains of unexploded ordnance that poses a danger to human life and property. But, given the heritage preservation objectives, there is a need to attempt to make safe ammunitions and ordnance that form part of the sites, and if this cannot be achieved, then to removed these ordnance items from the site for safe destruction off site. Detonation in place ought to be contemplated only as the last resort, and then with maximum consideration to keep the destruction of or damage to the surrounding heritage items to a minimum.

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