Visualizing the Past, Envisioning the Future: Atomic Bomb Memorials, Fukushima, and the "Fourth Space" of Comparative Informatics

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Here I explore the purposes of the monuments and museums commemorating the atomic bombings of Hiroshima and Nagasaki, paying special attention to some of their religious dimensions so as to disentangle the roles the monuments and religion have already played—and continue to play—at these sites, especially regarding peace. While I had hoped to explore their implications for commemorating the Triple Disasters of 3/11 and the impact the new information and communications technologies (ICTs) are having in the digital age, time is short, so I will handle that by indicating directions for future study, hopefully in the anthology of papers from this conference. The structure here is:

I. **Memorials**: What do memorials do (succeed at doing) and what do we need them to do?

II. **Hiroshima and Nagasaki Memorials**: Do the Atomic Bombing memorials differ from other memorials, and if so how and why?

III. **Religion and Peace at the Atomic Bombing Memorials**: How does religion currently manifest itself in Atomic Bombing memorials?

IV. **Implications for 3/11**: What are the lessons for Fukushima and 3/11 Disaster memorials?

V. **Digital Memorials and the Fourth Place**: What are the lessons for the Fourth Place?

A warning: This paper is not a history of the Atomic Bombing memorials—most of the analysis is based on what is found today, with reference to previous states and events as needed. And I’m using “religion” in a deliberately broad sense to include organized and folk religion and virtually any set of shared beliefs, practices and positive values that connects living persons or
communities to a god or gods, spirits, or ancestors. Of course we need at times at Nagasaki and Hiroshima to distinguish among Shinto, Buddhist, Confucianist, Daoist, Shinto and perhaps other religions. But such distinctions are not a major aim of this paper and will be made only when needed for a particular claim or piece of evidence.

I. Monuments and Memorials Throughout History

What is it we want and need from memorials to major disasters? For centuries, memorials 1) honored important events and men, especially victorious military leaders, 2) and were also expected to inspire citizens for future sacrifices on behalf of the nation, typically using statues of the heroes and inscriptions. After WWI, they took on the additional double funerary mission of 3) consolation for survivors and 4) commemoration—of all of the fallen members of the military—including not just a) victorious leaders but b) foot soldiers. Beyond this, in view of the seemingly unprecedented carnage of the First World War, they faced the task of 5) helping the living come to terms with the dead—with their collective and diffuse responsibility for the deaths in war and with their own continued existence at the expense of the fallen, as at Clivedon (at Taplow, Buckinghamshire, England) (http://en.tracesofwar.com/article/3819/Commonwealth-War-Cemetery-Cliveden.htm, http://www.cwgc.org/find-a-cemetery/cemetery/36350/Cliveden%20War%20Cemetry).

II. Post-World War II: The Holocaust and Hiroshima and Nagasaki:

Since World War II, memorials have taken on five additional functions that do not replace the WWI functions, but supplement them. These are: 6) commemoration of non-combatants, as at Auschwitz;

7) constructing collective memory in more far-reaching and ambitious ways; 8) commemorating not only one’s own dead compatriots but in some cases those of other nations, as at the Korean War Memorial and the atomic bombing memorials.
Korean War Memorial, Washington, D.C. Photo by the author.

This leads to the question: Do atomic Bombing memorials differ from other memorials, and if so, how and why? (For incredibly beautiful and evocative photographs of Nagasaki’s memorials and museums, see Andrew Marston, Touring Nagasaki, February 27, 2011, at http://www.unframedworld.com/journal/nagasaki-clocks-in-atomic-bomb-museum/.)
Atomic Bombing memorials share with Holocaust memorials\(^3\) the last two of our five post-WWII objectives: 9) education and dissemination of information, requiring the addition of museums, archives, and special exhibits,
Display explaining procedures and honoring victims at Auschwitz. Photo by the author.

and 10) preventing similar events in the future. These two final objectives are interrelated through our shared conviction that “knowledge is power,” and both have a strong orientation to the future. The determination to prevent similar events in the future has changed the nature of the kinds of information to be provided, and has necessitated the progression to providing knowledge as well as information. So as a result of this latter objective, their memorials must mark not only events, but causes and motivations, with much more complex understanding of the players and stakeholders—information that was not typically needed for prior war memorials.
The education missions of the Holocaust and atomic bombing sites differ from those of most memorials, because beyond the five new objectives adopted by post-WWII memorials, Holocaust and atomic bombing memorials take up two additional final missions. Most importantly, 11) they raise the question: How could this have happened? In asking this crucial question, they address those outside the immediate events—society at large.

Finally, complex memorials like these play a further role that is equally important but under-recognized: 12) to strengthen, create, redefine, and/or change human relationships. These relationships are of seven kinds:

a) among ordinary people: families, residents, etc. of the kind studied among museum- and zoo-goers by John Falk and Lynn Deering,
b) between the living and the dead,

c) between those who remember first hand and subsequent generations,

d) sometimes between adversaries (http://www.dailymail.co.uk/news/article-2183737/Harry-Trumans-grandson-visits-Hiroshima-memorial-honour-200-000-victims-atomic-bombings.html),

e) among survivors who shared the experience,

f) sometimes between people who were not directly affected and those who were, and

g) between people and the environment (both natural and built)—especially important when neighborhoods and whole cities have been destroyed.

In ordinary life (outside the context of memorials), such relationships are often constructed, interpreted, and analyzed in religious terms; indeed, religion permeates such sites. Furthermore, fostering these relationships is a task often carried out by ceremonies and religious ritual, to which we shall return.

**Differences between the Atomic Bombing and other Memorials**

There are a number of significant differences between the atomic bombing memorials and other memorials. First, the whole city is the evidence of the destruction; there is nothing that does not resonate with loss. This resonates with the 3/11 Disasters (and a few others), of course. Thus, memorial-building takes place within a context of rebuilding the entire environment. The loss of the whole place and its environment amounts to the destruction of a culture as well as of people, and therefore comprises one of the two forms of genocide. Atomic bombing memorials and museums must acknowledge both the immediate and the ongoing (open-ended) crises of uncertainty that accompanied the events as well as the aftermath of the effects of their radiation. For most wars end; radiation doesn’t, at least within human lifespans.
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This fact changes the educational mission: from one based on a stable body of objective knowledge, to one that can be comfortable with the (at first) vast amount of uncertainty, AND the presentation of knowledge about things, forces and events that were completely unfamiliar—even to scientists—barely a decade before.

For over fifty years the memorials in Hiroshima and Nagasaki have carried out their complex mission. They also were among the first to insist on an even broader purpose, thereby redefining the mission of a memorial: namely, to work to implement world peace. In 1978 in Nagasaki the World Peace Symbol Zone was established “to make a strong appeal to the world for the realization of everlasting peace for mankind under the pledge of “peace from Nagasaki” and to make Nagasaki a sacred place for world peace by displaying peace monuments donated from all over the world.” (As of 2012 there were fifteen such monuments.) Similarly, Nagasaki’s Peace Statue (below) by Nagasaki Prefecture artist Seibo Kitamura is called, literally, “a prayer for everlasting world peace and a symbol of the supreme hope of human beings.” The official text reads: “The statue is highly symbolic. The right hand points skyward to warn of the threat of nuclear bombs, the left hand stretches out horizontally to symbolize world peace and the lightly closed eyes represent a prayer for the repose of the souls of all atomic bomb victims.” Many independent groups, including religious groups such as Soka Gakkai, contribute to this consciousness-raising and activism for peace.
This has meant, however, that concern about nuclear issues other than war has often taken a back seat.

Here I note an important difference between the Holocaust and atomic bombing memorials, namely, that Holocaust memorials often try to convey parts of the *experience* of going through the Holocaust, whereas this is not part of Atomic Bombing memorials. The reasons for this are interesting and complex, but I cannot address them here. (H circumscribed in time and space and target populations, Atomic Bombing open ended with implications for all humanity—that have not ended even yet.)

**III. Religion at the Atomic Bombing Memorials:**
How does religion manifest itself in atomic bombing memorials? What roles do religions play in the memorials’ contributions to the peace movement? What are the relations between religion and the anti-nuclear movement, if any? (I’m using religion in a deliberately broad sense to include organized and folk religion and virtually any set of shared beliefs, practices and positive values that connects living persons or communities to a god or gods, spirits, or ancestors.⁸ (While of course we need at times at Nagasaki and Hiroshima to distinguish among Shinto, Buddhist, Confucianist, Daoist, and perhaps other religions.

**Ways in Which Religion Appears at the Memorials**

There are several distinct ways in which religion appears at the memorials. Some of them are subtle, such as the decision to erect the Bell of Nagasaki (below), whose construction was made possible by donations from survivors and victims’ relatives, on the *thirty-third* anniversary, a traditional Buddhist date for memorials.
Others are obvious or are made explicit via signage. Nagasaki’s Peace Statue is called, literally, “a prayer for everlasting world peace…” (taken from the English version of the brochure).

Insofar as the urge to remember our dead typically has a religious, (not only emotional and cognitive, that is, more self-serving) dimension in any social context, we can of course say in a general way that all the sites with all their related rituals and practices, are religious. But that, to my view, is overly broad. If we want to understand these memorials and their implications, we should probe more deeply.
A. Honoring the Dead

The place to begin, then, is with the age-old custom of honoring the dead. In Nagasaki’s Peace Statue, and its “lightly closed eyes represent a prayer for the repose of the souls of all atomic bomb victims.” But while the custom is both age-old and universal, the specific urge it must satisfy here is one that is particularly problematic in this context of a culture of filial piety. For the underlying motivations of Japanese burial practices are related to “filial piety”—specifically to parents and other direct family ancestors: the fact of indiscriminate death churns up this process, as so many of the families now have no children to pray for them. The community takes the responsibility on itself, but this constitutes a major disruption of custom, and contributes a unique grief.

B. The “Prayer Zone” and Nagasaki as “A Sacred Place for World Peace”

Nagasaki’s memorials include two explicitly religious zones: the prayer zone around the hypocenter and the Commemorative monuments in the zone of hope.

C. Religious Buildings as Victims

In Nagasaki religious structures that were damaged (such as the torii gate at Sanno Shrine) or destroyed (Urakami Cathedral) are recognized as victims. The Stone Lanterns of Shotokuji (Temple) are also of religious significance.

D. Trees as Victims
The influence of Shinto is seen in the monuments to trees, of which there are now at least three in Nagasaki.\textsuperscript{13}

**E. Memorials as Sites for Religious and Other Rituals of Remembering and Honoring**

Perhaps the most important religious role the memorials play is to serve as the site for commemorative rituals and events (http://www.mp3last.com/play/2013-hiroshima-peace-memorial-ceremony-toro-nagashi-water-lantern-ceremony/TQNHIx0_d5Y#.U0GOsseH_aY; http://www.sgiquarterly.org/feature2010Oct-7.html).\textsuperscript{14}

This matter of rituals needs exploration on it own, which we don’t have time for today. But let me just mention a couple issues. Rituals need to take time—in order to put us into their special time—which is also traditionally a collective, communal time. They require some small sacrifice of time but also effort, attention, perhaps expense. But their rewards are great—although not always evident to outsiders.

Unlike WWI memorials, contemporary memorials insist upon active *resistance* to closure. It is not enough to build and then to allow the physical presence *to stand in for* the mental, emotional, and spiritual activity of remembering and honoring—allowing the memorial to do our remembering for us—as we subsequent generations often try to do.

**Non-Religions Symbolism**

Atomic Bombing memorials present as secular—or at least neutral—sites—for two reasons. First, the architecture is deliberately neutral international modernism, and second, arguably all Japan is sacred space, so how is this place with its spattering of shrines different in its degree of religiosity from, say, downtown Kyoto?
In understanding these sites, moreover, it is equally important to note the ways in which religion does not appear, and in which an appeal to religion may be denied. The raised right hand Nagasaki’s Peace Statue points not toward heaven but toward the sky with its now unavoidable potential threat of bombs. For example, the official text regarding Nagasaki’s Peace Statue reads: “The statue is highly symbolic. The right hand points skyward [not toward Heaven but] to warn of the threat of nuclear bombs…” (italics mine). Is this the atomic-bomb-warning mudra?

**IV. Implications for 3/11:**

The processes of memorialization of 3/11 have complementary objectives: to contribute to the construction of collective memory and public knowledge, and to help people rebuild their individual lives and their communities. How do and how should these memorializations take place? Beyond that, how does this situation compare with others we have examined, especially those of Nagasaki and Hiroshima? To what extent and in what ways might they want to address larger issues related to nuclear power and/or to natural disasters and the needs for planning for them? Note that I refer in the plural not only to the 3/11 disasters but to their memorials, for the information and communications technologies guarantee that there will be many such efforts.

The triple disaster of March 11, 2011 reminds us that not all destruction is man-made and that even man-made threats of violence are not necessarily acts of war. Peaceful practices (nuclear power) may be just as dangerous. This leads us to new questions. What should we be asking? What issues should be addressed?

And are there lessons of the atomic bombing memorials for Fukushima and 3/11 Disaster memorials? How do the atomic bombing memorials and their Peace Parks contribute to these
projects? Did their focus on eliminating war and generating peace lead to the neglect of other nuclear issues? Does 3/11 need now to address questions about peaceful as well as war-time use of nuclear power? What can we learn from 3/11 about how we should address questions about peaceful as well as war-time use of nuclear power? About the interplays of natural disaster and unintentional industrial violence? Or should we focus on the interplay of industry and natural disaster, of good intentions with lack of control?

The peace messages of Nagasaki and Hiroshima are irrelevant. But what about questions about the atomic bombing memorials and their implications for the future. The messages were designed to lead in two directions: warnings about nuclear war, and warnings about war in general. Somehow the importance of nuclear devastation per se was ignored. As nuclear power plants continue in use—and new ones are built—as flaws in their safety systems are uncovered and the training, selection and preparation of nuclear workers is overlooked, as accidents with nuclear weapons continue, as nuclear materials go missing or are newly produced by rogue states, these larger issues must also re-enter the national and international conversations.


Another set of issues arises from the fact that the new memorials are being created in the digital age. While they in no sense (I believe) supersede the material world, they add new dimensions, speed, reach and connection. While such memorials are still developing—and very rapidly—we can already recognize some important changes. How do on-line/in-the-cloud “virtual” monuments differ from actual physical monuments?

Digital Memorials and the Fourth Place
Much of the memorialization for the Triple Disasters of 3/11 has occurred electronically and digitally, by means of the various information and communications technologies (ICTs) that victims, first responders, journalists, and others began using immediately. Such records and encounters occurs in what might be considered the “Fourth Place,” I term I coined by analogy with the Third Place and define as the digital/technological or virtual equivalent of the “Third Place,” a concept developed by Ray Oldenburg (1989, 1988) and now widely used. First and Second Places are home and work. Third Places, by contrast, are community gathering places, essentially open or public—churches and temples, libraries, meeting halls, coffee shops.

Compared to First and Second Places, we have more latitude in our choice to visit Third Places, less (social, moral and legal) obligation toward them, and they demand less of us—socially, mentally, financially. Over the past two centuries, when cemeteries, those assemblies of small-scale personal memorials, began to be made more park-like, many families did begin to use them as gathering places for picnics and socializing as well as grieving—making them a variety of Third Place.

The Fourth Space as a Memorial Space and an Anti-Nuclear Space

One question is whether digital memorials and monuments might in any sense replace—or are in any sense already replacing—actual physical memorials—and if so to what extent and in what ways. How do they differ?

Some of these differences between traditional and Fourth Place memorials are identical to the differences between other digital versus pre-digital records, monuments, etc. Digital coverage, among other things:

1. can be more complete, inclusive, and comprehensive;
2. can be more spontaneous;
3. requires, to be sure, significant technological infrastructure (now widely accessible);
4. does not require permissions, licenses, editing, access to sophisticated publishing institutions, etc. that made getting their message out their all but inaccessible;
5. is much less expensive;
6. affords builders and users more flexibility in terms of time commitments.

New institutions are rapidly emerging that can accommodate many of the new media, such as the “Digital Archive of Japan’s 2011 Disaster” (www.jdarchive.org) described by Ted Bestor in his recent article in the Journal of Asian Studies.¹⁵ Searches under “Buddhist” on this site resulted (on that day) in ninety-two items about:

a. Prayers such as those “to the Buddhist Dragon God” with links to photos and maps;

b. Buddhist-sponsored relief efforts such as that of JNEB: the Buddhist Campaign for Earthquake and Tsunami Relief, that give links to items such as Buddhism and Nuclear Power and Dying, Bereavement, Psycho-Spiritual Care, and Buddhist Chaplaincy. Shinto searches yielded 58 links, such as this one that is part of the Japan Earthquake Collection https://archive-it.org/collections/2438 assembled by Virginia Tech’s Crisis, Tragedy, and Recovery Network http://www.ctrnet.net/, which “depicts the events surrounding the 2011 Earthquake and Tsunami in Japan and the post-disaster reconstruction. Content includes blogs, social commentary, television/online news sites and aid organizations, with content in both English and Japanese” and links to nearly ten thousand sites.¹⁶

Many of the most important differences, however, have to do with their capacity to facilitate and sustain ritual—matters I will discuss more in the anthology based on this Numata Conference.
CONCLUSIONS

What are the lessons of the atomic bombing memorials for the Triple Disasters memorials?

How can we apply the lessons of the atomic bombing memorials for the Triple Disasters memorials in the 4th Place?

What roles will more traditional memorials play in the digital age? These websites and compilations of sites take on many of the functions of 20th-century memorials, including commemoration, documentation, spreading information, etc. At the same time, they take us beyond what traditional memorials could do, insofar as they began immediately both to document and to provide resources for victims. Why are physical memorials still needed, and how will digital commemoration and information dissemination affect them?

So far it seems to me the most important questions will be:

1. How can they contribute to the support of the ritual structure that is such an important part of memorials—especially in cases where we want to ward off closure, to keep alive the pressing needs of the future that are best addressed with the knowledge and wisdom gained from past experience.

2. Do 3/11 memorials need to keep closure at bay, as Holocaust and atomic bombing memorials do?

3. And will the 3/11 memorials take on larger tasks addressing the prevention of such events in the future, as Hiroshima and Nagasaki have done by taking up the cause of peace?

These are by no means all the important questions, but they must suffice for this essay.
For reasons I analyze elsewhere (begun with two articles for educators; see Mara Miller, “Terrible Knowledge And Tertiary Trauma, Part I: Teaching About Japanese Nuclear Trauma And Resistance To The Atomic Bomb,” *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 86(05), 157-163; published online 05 Jul 2013, and “Terrible Knowledge And Tertiary Trauma, Part II: Suggestions for Teaching about the Atomic Bombings, with Particular Attention to Middle School,” *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 86(05), 164-173; published online 05 Jul 2013, and am continuing with in a book called *Terrible Knowledge and Tertiary Trauma: Teaching the Atomic Bombings of Nagasaki and Hiroshima: Why We Must, Why We Don’t, and How We Can without Depressing Ourselves and Our Students*, our usual (and usually deeply productive and rewarding) conceptions of information and even knowledge are inadequate to the purpose of understanding death and destruction on these scales and of these kinds (*intentional*, just to begin).

In fact, *pace* Bacon, in some cases—cases of what I call "terrible knowledge"—knowledge itself may be damaging those who learn it. In these respects, the atomic bombing is similar to the Holocaust.

There are also a number of more “objective” similarities. (By “objective” I mean here that they are less dependent upon interactions with human minds and hearts—our cognitive and emotional faculties.) And while the differences in scale make a difference, in both cases the scale was large enough that for many survivors there was no one left intact to help; those who would normally aid in recovery were also dead or too damaged to assist.
And both also involve violations of deeply imbued long-standing religious, political and military principles and practices (such as killing civilians and non-combatants)—that were long recognized, moreover, in long-standing conventions and even treaties. Both also required the use of the most sophisticated and highly prized technology for these purposes. This use of technology for such purposes only heightened the already highly developed sense of the terrors of technology, although in these two cases the results depended not only on science and the character of humanity but also on the form of political known as the modern state, and the modern ideology of efficiency (as Erich Fromm and others of the Frankfurt School philosophers noted). Because they are so similar, there is a lot we can learn from those who pioneered the teaching and memorialization of the Holocaust. But this is a separate article.)

Of course, there are enormous differences in scale (both in populations affected and the geographical scope of the damage and of the political consequences), the roles of bystanders and non-governmental participants and of the victims’ own local communities, the duration of time over which it took place and the consequent potential for outsiders to intervene, and in many other respects, such as how long objective effects (radiation versus poison gas) linger. (The subjective aftereffects are, I would imagine given recent studies of the aftermath of PTSD, less dissimilar.) The context was also different: the atomic bombings were part of declared war against the nation attacked, and the aim was military victory, not genocide (although racial and genocidal considerations on the part of the decision-makers have been asserted).

1 Although this might seem so broad as to exclude nothing, it does intend to exclude a) purely personal or idiosyncratic systems; b) those that might be constructed along purely negative or destructive values; and c) purely secular aims to establish a broader network of positive values and actions.
Women are extremely rare in earlier times, and most memorials honoring them are recent.

For important differences between the Atomic Bombing Memorials and Other Memorials, see the Appendix.

Different isotopes have different half-lives, of course, a matter whose implications beyond the scope of this paper. This fact is a basis for the recent opening of Chernobyl as a tourist site.

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The statue was unveiled in 1955 for the tenth anniversary of the bombing.

Kitamura’s Peace Statue (9.7 meters high, on a base 3.9 meter high) took five years to construct and was made possible by donations from people in Japan and across the world.

Although this might seem so broad as to exclude nothing, it does intend to exclude a) purely personal or idiosyncratic systems; b) those that might be constructed along purely negative or destructive values; and c) purely secular aims to establish a broader network of positive values and actions.

Title: Statue at Nagasaki Peace Park. FlyingToaster Original uploader was FlyingToaster at en.wikipedia [2008-11-25 (original upload date; Original text : 2008-23-1); Transferred from en.wikipedia; transferred to Commons by User:Gerardus using CommonsHelper. (Original text : I created this work entirely by myself.) CC-BY-3.0. Permission Reusing this file FlyingToaster at en.wikipedia, the copyright holder of this work, hereby publishes it under the following license:

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A variety of terms are used: koukou 孝行, koukou, koudou, koutei, koukei, Confucianist, Buddhist, and Shinto in origin.

Several religious structures were partially or wholly destroyed by the blast. At Sanno Shrine, about 800 meters southeast of the hypocenter, the upper part of the second torii gate was blackened and its crossbeams and the pillar closest to the blast were destroyed. (The fate of its
trees will be discussed separately.) Urakami Cathedral, the largest cathedral in Asia, located only 500 meters northeast of the hypocenter was destroyed and over two-thirds of them (8,500 out of a congregation of twelve thousand) perished.

12 Such treatment that acknowledges their special status as social institutions that don’t merely hold and serve communities but constitute them. (The other type of building so treated is schools, although that case is exacerbated by the uniqueness of the child victims, who as young and especially helpless deserve and normally receive our special consideration.)

13 The reason given for honoring them is that even though “The ferocious blast wind of the atomic bomb destroyed the upper branches of these trees and stripped them of their leaves[, and t]he heat rays reduced the trees to such a state that they were given up for dead,… they regained their vitality and live on today.” From Walking Tours of the Atomic Bombing Monuments, Nagasaki National Peace Memorial Hall for the Atomic Bomb Victims, 2012 version, produced in cooperation with Nagasaki Atomic Bomb Museum. The White Pine (#36 on the brochure’s map) is another kind of example—something that survived, donated by a soldier who was fighting at the time and donated it “the only memory of his family of five.”

14 See, for example, http://saudadechrist.blogspot.com/2012/08/toro-nagashi-on-motoyasu-river.html

15 The Digital Archive of Japan’s 2011 Disasters (JDA) is an online portal to digital materials documenting the cascading series of natural and man-made disasters that began in Japan on March 11, 2011. Designed and maintained by the Reischauer Institute of Japanese Studies at Harvard University, the JDA relies on the support of partner organizations around the world to supply digital contents, including websites, tweets, video, audio, news articles, and much more. The JDA does not store copies of the data; rather it seamlessly links to digital materials archived by partner projects, allowing you to search, view, and sort items across separate archives and collections in one interface.” From the jdarchive.org English page: “How to Use the Archive.”

16 It lists its subjects as “Spontaneous Events, earthquake, tsunami, Japan.”