

Shards, Shells, and Wikipediasts: The Virtual Fate of Japan Archaeology

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Wikipedia is supposed to be the ultimate in one-stop knowledge shopping. I recently looked through the content of some of the pages on the subject I know best—Japan archaeology. And if I may put the conclusion first: Wikipedia is a gargantuan production by a crowd of totally unqualified amateurs discussing and writing and arguing about subjects they are wholly unqualified to discuss or write or argue about. Professionals join such a free-for-all at their peril. Informed voices are not recognized amid the cacophony of the uninformed. And trying to fix the content of a Wikipedia article is a waste of valuable time—one might as well create a web site on the subject.

The basic concept of Wikipedia is that any person sufficiently motivated may put up a page on any subject thought worthy of address, and the person need not have any particular qualification to write on that subject. Then, anyone else who wants to join in can modify that page or discuss various points of content, and of course the inspired respondent as well need not have any other particular qualification to write on the subject in question. This melee is maintained on Wikipedia under four tabs: Article tab, Discussion tab, Edit-this-page tab, and History tab. Nothing at all in the abundant verbiage accumulating around a topic gives the reader means to judge the validity of the content—and the verbiage just goes on and on, no matter how slight the issue.

To me it is painfully obvious that the Wikipedia system cannot produce reliable information—leave alone knowledge. Yet I have the impression that many supposedly intelligent people use Wikipedia as though the Wiki-word was The Word on any subject, and Wikipedia management seem to encourage this approach.

My study and my profession for the past 40 years has been the archaeology and pre-history of Japan. That is what I have been doing for a living full-time for four decades and, besides becoming old in the process, I have heaped-up enough experience at this occupation to feel obligated to venture a judgment on the accuracy of Wikipedia's content, especially with regard to Japan archaeology. (Readers are invited to roam around in this heap of experience at my website on Japan archaeology <<http://www.t-net.ne.jp/~keally/>>.)

In September and October 2007 I Googled several major topics in Japan archaeology and looked over the Wikipedia content. What I found was worse than poor—all

topics were full of errors. There was no indication that any writer thrown up by my Googling had even the slightest qualification to write on or discuss the given topic—“Jomon Period,” say. Most sounded like high school students. One *was* a high school student, admittedly writing argument from a few paragraphs on Jomon culture found in a school textbook. Some of the content included was irrelevant to the topic. Much of the discussion could have been characterized as ... here I search in vain for a word both adequate to my response at the time and also printable in a more-or-less respectable journal. And all of the content was riddled with errors, with no means given for the ordinary reader to discern the accurate from the erroneous, the fact from the fairy tale. I'd like to withdraw my recent defamation of high school students—in fact, the quality of research I saw here would earn no more than “F” on any high school history research project.

The quality of the Wikipedia content in the field I know best leaves me to wonder about the quality of the rest of Wikipedia wisdom, filed under myriad other topics in a vast electronic encyclopedia. Is there reason not to assume that very much of the content in 7,000,000 Wikipedia articles (in 250 different languages) is equally unreliable as source of information? Wikipedia was supposed to fill the minds of the world with all the knowledge of the world. In fact, Wikipedia is likely the greatest source of misinformation the world has known. Certainly, anyone rummaging through Wikipedia for knowledge of Japan archaeology or prehistory must do so with the bargain-hunter's savvy that anything this cheap is probably worth even less.

For me, the great mystery here is why people who must know that they are not specialists or specially informed on a given topic nevertheless feel free to write about the topic on Wikipedia, and engage in lengthy debates about it, too. My impression is that these people writing on Japan archaeology topics are equivalent to children playing grown-up. Are they aware at all of the possible consequences of what they are doing? Wikipedia is much too much like “enough monkeys banging away on enough typewriters”—something coherent may come of all this random activity, but I can't wait that long.

Down to Specifics: Consulting Wikipedia on the “Jomon Period”

Criticizing a Wikipedia article is like throwing rocks at a moving target, the object of attention changes that frequently. And just this is one of the major problems with Wikipedia: If the content changes so much, so rapidly, how can it be treated as reliable? But here are some of my specific criticisms of the Wikipedia article on the Jomon Period, as the content sustained itself for the days I viewed the article. The five major aspects of judgment of any article that I evaluate are these:

1. References Cited:

The first thing I look for in a journal article or student research paper is quality in the list of references cited, in order to see if the writer has done the necessary homework or not. If not, then I discard the article or grade the paper “F,” without reading it. There is no sense in reading an article of research if the author has not done research.

The references cited in this Wikipedia article on the “Jomon Period” are barely adequate for a high-school term paper; I would certainly inscribe an “F” upon the paper of any undergraduate student who could do no better than this at assembling reference material, both hard-copy published and Internet; and I would summarily flunk a graduate student for the whole course for turning in a paper with such a poor list of references cited (Jomon Period <http://en.wikipedia.org/wiki/J%C5%8Dmon_period>, viewed September 13, 2007). Here is the list of references as copied directly from this Wikipedia article, with all its errors and other problems intact:

References

- *This article contains material from the Library of Congress Country Studies, which are United States government publications in the public domain.* - Japan
- “Ancient Jomon of Japan”, by Junko Habu, Cambridge University Press, 2004, ISBN 0-521-77213-3
- “Prehistoric Japan”, by Keiji Imamura, University of Hawaii Press, 1996, ISBN 0-8248-1852-0
- “Subsistence-Settlement systems in intersite variability in the Moroiso Phase of the Early Jomon Period of Japan”, Junko Habu, 2001, ISBN 1-879621-32-0
- Encyclopedia of Ideas that changed the World, Robert Ingpen and Philip Wilkinson, 1993, ISBN 0-670-84642-2
- “The History and Geography of Human Genes”, Cavalli-Sforza, ISBN 0-691-08750-4
- The Neolithic Age in Eastern Siberia. Henry N. Michael. Transactions of the American Philosophical Society, New Ser., Vol. 48, No. 2 (1958), pp. 1-108. (laminated bow from Korekawa, Aomori)

The only truly useful reference in this list is Junko Habu's *Ancient Jomon of Japan*. Professor Habu has here achieved a book that is as close to sufficient as is possible for a single volume dealing with a subject as large and detailed as the Jomon culture. In 262 pages of main text the coverage is extensive and detail well balanced on all topics. And the reference section of 55 pages, which includes the most obscure writings (e.g., Keally 1971), shows that Habu really did do her homework for this book. These references also include 18 publications by Habu herself, and 15 by Tatsuo

Kobayashi (see comments on Kobayashi below). It seems to me that no statement in any subsequent research paper on the Jomon Period may be permitted innocently to contradict Habu's authoritative presentations on the same topics. Responses to Habu are appropriate and, indeed, are the stuff of scholarly discourse, but blithe indifference justifies disqualification. The innocent or indifferent Wikipedia writers begin to seem like so many squatters in an area of knowledge to which serious scholars have devoted a lifetime of research.

Habu's book on subsistence-settlement systems in the Moroiso phase of Early Jomon is also useful but very narrow in scope. Keiji Imamura's *Prehistoric Japan* seems to me an uneven work. The content is very detailed on some topics and very slim on others equally important. The book covers all of Japanese prehistory, but offers only 87 pages on Jomon. Further, Imamura's reference section runs to only 12 pages, with 13 of the references referring us to books by Imamura himself and only three referring to work by the remarkable Tatsuo Kobayashi (more on him follows below). The Library of Congress materials were written in 1994 by a nonspecialist and were insufficient and out-of-date even as they were being uploaded to the Internet. The three other references have no place at all on such a list, while the many other resources that belong here are ignored.

Here is a partial list of research that does belong on such a reference list and that may improve the quality of anyone's thinking about this topic:

- Aikens, C. Melvin, and Takayasu Higuchi. (1982). *Prehistory of Japan*. Studies in Archaeology. New York: Academic Press. (Main text 337 pages; Jomon text 92 pages.)
- Kobayashi, Tatsuo. (2004). *Jomon Reflections: Forager Life and Culture in the Prehistoric Japanese Archipelago*. Ed. Simon Kaner with Oki Nakamura. Oxford, England: Oxbow Books. (Main text 186 pages, all on Jomon.)
- Koyama, Shuzo, and David Hurst Thomas (eds.). (1979). *Affluent Foragers: Pacific Coasts East and West*. Senri Ethnological Studies No. 9. Osaka: National Museum of Ethnology. (Main text 295 pages; Jomon text [3 good articles] 72 pages.)
- Pearson, Richard J., Gina Lee Barnes, and Karl L. Hutterer (eds.). (1986). *Windows on the Japanese Past: Studies in Archaeology and Prehistory*. Ann Arbor, Michigan: Center for Japanese Studies, The University of Michigan. (Main text 496 pages; Jomon text 92 pages.)

Three of these four books are old and general works on Japanese prehistory. But they are all good books—useful for a student research paper on the Jomon Period even today. And, surely, any research into the Jomon Period should require reference to Tatsuo Kobayashi. When I Googled <+jomon “kobayashi tatsuo” “tatsuo

kobayashi”>, Kobayashi's *Jomon Reflections* was appropriately there at the top of the list. Kobayashi is one of the most prominent Japanese archaeologists and the leading Jomon archaeology specialist, and no research paper on the Jomon Period is complete without reference to publications by Kobayashi. The fact that his name is missing from the reference list for this Wikipedia article on the Jomon Period shows that teachers need to be more strict about assigning and grading homework. I say give a “D” to any student of archaeology who does not know Kobayashi's work, but, hey, that's me.

In the age of the Internet, no research paper is complete without a few references to materials available online. This Wikipedia article on the Jomon Period offers links to several web pages, but it does not list any of these in the references-cited list.

On October 15, 2007, I Googled for the search terms <“jomon culture”>, <“jomon period”>, <+jomon +subsistence>, <+jomon +diet>, <+jomon +pottery>, <+jomon +dates>, <+japan +pottery +early>, <+japan +“early pottery”>. Each of these search terms, or pair of terms, generated two or three very useful web pages or sites within the first 20 hits. Some of these are:

Memory of the Jomon Period, by The University Museum, The University of Tokyo [follow links] <http://www.um.u-tokyo.ac.jp/publish_db/2000dm2k/english/02/02.html>.

The Prehistoric Archaeology of Japan, by the Niigata Prefectural Museum of History <<http://www.nbz.or.jp/eng/prehistoric.htm>>. This main page links to a page on The Chronology of the Jomon Period <<http://www.nbz.or.jp/eng/jomon.htm>>, which in turn links to pages for all six Jomon subperiods.

Chronologies of the Jomon Period <<http://www.jomon.or.jp/e3.html>>, by the International Jomon Culture Conference. The English front page of this organization has a link to “Bulletin,” which has many good reports on the Jomon Period in English <<http://www.jomon.or.jp/efront.html>>.

As far as I can determine, the Wikipedia article on the Jomon Period does not cite any of the these pages, or offer links to them, or a link to my own web page <<http://www.t-net.ne.jp/~keally/>>, which turns up in the first ten hits for Jomon culture, subsistence, and diet, and in the first 30 or 40 hits for the other terms I pursued through Google. (But I note that a link to my web page is offered in a Wikipedia article on the Japanese Palaeolithic.)

In addition to a general shallowness of reference, there are other problems. The reference format is inconsistent, the capitalization is inconsistent, the sequence of content is inconsistent, and there are errors in the titles quoted. Even a high school student should be required to learn a standard form for bibliography. Yes, the writers of

this Wikipedia article on the Jomon Period clearly have not been doing their homework. As a Wikipedia article, or as a research paper, this Jomon Period effort has become questionable even before the content is addressed.

2. Erroneous Statements:

When I set out to study a research paper, I am, like most readers with a special interest, alert for obviously erroneous statements. If I find errors in the generally settled and accepted matters, then I have to assume that there are likely errors in the matters that are new to me. This Wikipedia article on the “Jomon Period” had disqualified itself before I was halfway through it <http://en.wikipedia.org/wiki/J%C5%8Dmon_period> (viewed September 13, 2007).

Error #1: The article *begins* with an erroneous statement, or one that is at the least very out-of-date: “Most scholars agree that by around 40,000 BC glaciation had connected the Japanese islands with the Asian mainland.” This statement is taken directly from the Library of Congress source cited in the references <Library of Congress Country Studies, [http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field\(DOCID+jp0015\)](http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field(DOCID+jp0015))>. At the bottom of the Library of Congress text one reads “data as of January 1994.” In fact, however, the current and generally accepted view is that the main islands of Japan, except Hokkaido, have not been connected to the continent by a land bridge for the past 430,000 years (also given as 300,000 years). For more details see my web page on land bridges in Japan and the references given there <<http://www.t-net.ne.jp/~keally/MiddlePalaeol/landbridges.html>>.

Furthermore, even before the Library of Congress article was written in 1994, there was general agreement among geologists and paleontologists that the main islands of Japan had not been connected to the continent via a landbridge for at least 130,000 years—not since the beginning of the Late Pleistocene (Takahashi 2007: 7-8, 14).

... there is general agreement today that the Tsushima Strait between western Japan and Korea, and the Tsugaru Strait between Honshu and Hokkaido, remained open throughout the Late Pleistocene, and that only Hokkaido in the north was connected directly to the continent by a land bridge (Keally 1991).

The authors I cite for this statement are Japanese geologists and paleontologists whose research focuses on the question of land bridges between Japan and the continent (Ohshima 1980: 35-36; Kamei and Research Group 1981; Mogi 1981; Kawamura 1985: 352; Ota and Yonekura 1987: 71; Kawamura *et al.* 1989). These are all primary sources published by specialists in the field being discussed, not secondary sources by people who are not specialists in the field. Moreover, conjectural land bridges of 40,000 years ago are irrelevant to discussion of the Jomon Period.

Error #2: Further down in the article is the statement: "... lived in caves and later in groups of either shallow pit dwellings or above-ground houses." This is fundamentally wrong. In fact, the Jomon people rarely used caves, even in the earliest phases of the culture, and they continued to use caves only occasionally throughout the whole Jomon Period. Caves were never a distinctive characteristic of any phase of the Jomon culture, although they are more noted in the literature for the earliest phases. Above-ground dwellings also were not common, or at least not commonly identified by archaeologists. So, yes, the Jomon people did use caves and above-ground dwellings. But the Wikipedia statement becomes erroneous in the emphasis it gives to these two rare kinds of shelters.

Error #3: The author of this article says that "the earliest forms of farming are sometimes attributed to Japan (Ingpen and Wilkinson 1993) in 10,000 BC." The citation refers to: *Encyclopedia of Ideas That Changed the World*, Robert Ingpen and Philip Wilkinson, 1993, ISBN 0-670-84642-2.

The date given suggests that Ingpen and Wilkinson (of whom I had never heard mention) are referring to finds from the Torihama Shellmound, but possibly some other site in southern Kyushu. But "farming" was never a part of the Jomon subsistence strategy, although there is now little doubt that the Jomon people did cultivate a few plants from quite early on (Habu 2004: 59-60, noted above under "References"). Cultivated (domesticated) plants were never more than perhaps 1% of the food base.

Jomon Reflections by the authoritative Tatsuo Kobayashi (pp. 72-97) has a good discussion of Jomon subsistence strategies. Kobayashi references Junko Habu's *Ancient Jomon of Japan* (pp. 59-60) for details on domesticated plants in the Jomon Period—Habu gives Early Jomon as the oldest dating for such. If the writer of this article on the Jomon Period had done enough homework, then Ingpen and Wilkinson 1993 need not have been troubled on the topic of possible Jomon farming. The writer would have known enough to cite the indispensable Habu 2004 (Habu and Kobayashi are both introduced above). Further, an Internet search for the terms <+jomon +domesticates> would have turned up my web page on Jomon culture in the second position <<http://www.t-net.ne.jp/~keally/jomon.html>> and a very good article by Dr. Richard Pearson (specialist in Japan archaeology) in the third position (Pearson 2004) <<http://www.jomon.or.jp/ebulletin14.html>>. The Keally web page on the Jomon period discusses the Jomon diet briefly and links to an English language bibliography for Jomon subsistence and diet studies. Pearson's "New Perspectives on Jomon Society" is a general article but it provides some very useful ideas on the topic of the Jomon diet and belongs in a list of references.

The Jomon people did not farm; they cultivated a few domesticated plants. The use

of “sometimes” gives too much emphasis to an activity that was actually rare—the evidence for domesticated plants before Early Jomon is questionable and suggested only in one or two publications that I know of.

Error #4: Under the Discussion tab I found this matter:

Also, the section with the heading “Neolithic...” contains a passage about pottery indicating a sedentary life, since ceramic breaks easily ... For a direct opposite of this, see this quote, from page 923 of William Hurley's *Prehistoric Japanese Arts: Jomon Pottery*. *American Anthropologist*, New Series, Vol. 73, No. 4. (Aug., 1971), pp. 922-925): The earliest Jomon pottery appears to be associated with hunting and gathering peoples and the ceramics are suggested as antedating specimens on the continent by several millennia as the Fukui Cave examples are dated at 10,750 ± 500 B.C.

In the first place, the syntax and bibliographical form used for the citations matches no known system—a writer's one-off approach, perhaps marking her being too much in the moment to worry about “form.” But on to substance: William Hurley did not write an article titled “Prehistoric Japanese Arts: Jomon Pottery”; he wrote a review of J. E. Kidder's book of that title. And, third, “hunting and gathering peoples” does not mean a mobile way of life. The Jomon people were a hunting-gathering-fishing people, but they were sedentary. Japan is a rich country. If a hunting-gathering-fishing people control their population, as the Jomon people did well enough, and if they know their environment well, as the Jomon people did, and if they exploit the resources wisely, as the Jomon people did, then they can live by hunting, gathering, and fishing mostly within a radius of about five kilometers of their settlement (Akazawa 1980).

3. Plagiarism:

This Wikipedia article on the “Jomon Period” has a lot of plagiarized material, text that is almost identical to the text of the source it is based on and without any citation to indicate that source. Changing a few words here and there is not “writing in your own words”; it is plagiarism. Compare the following pairs of text:

Pair #1:

WIKIPEDIA: [The article begins with:] Most scholars agree that by around 40,000 BC glaciation had connected the Japanese islands with the Asian mainland. Based on archaeological evidence, between 35,000 BC and 30,000 BC *Homo sapiens* had migrated to the islands from eastern and southeastern Asia and had well-established patterns of hunting and gathering and stone toolmaking. Stone tools, inhabitation sites, and human fossils from this period have been found throughout all the islands of Japan. Additionally, a 1988 genetic study points to an East Asian base for the

Japanese people [http://en.wikipedia.org/wiki/J%C5%8Dmon_period] (viewed September 16, 2007)].

LIBRARY OF CONGRESS—JAPAN: On the basis of archaeological finds, it has been postulated that hominid activity in Japan may date as early as 200,000 B.C., when the islands were connected to the Asian mainland. Although some scholars doubt this early date for habitation, most agree that by around 40,000 B.C. glaciation had reconnected the islands with the mainland. Based on archaeological evidence, they also agree that by between 35,000 and 30,000 B.C. *Homo sapiens* had migrated to the islands from eastern and southeastern Asia and had well-established patterns of hunting and gathering and stone toolmaking. Stone tools, inhabitation sites, and human fossils from this period have been found throughout all the islands of Japan [[http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field\(DOCID+jp0015\)](http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field(DOCID+jp0015))] (viewed September 16, 2007)].

Pair #2:

WIKIPEDIA: [Further down in the text is this:] More stable living patterns gave rise by around 14,000 BC to a Mesolithic or, as some scholars argue, Neolithic culture, but with some characteristics of both. Possibly distant ancestors of the Ainu aboriginal people of modern Japan, members of the heterogeneous Jomon culture (c. 14,000-300 BC) left the clearest archaeological record [http://en.wikipedia.org/wiki/J%C5%8Dmon_period] (viewed September 16, 2007)].

LIBRARY OF CONGRESS—JAPAN: More stable living patterns gave rise by around 10,000 B.C. to a Neolithic or, as some scholars argue, Mesolithic culture. Possibly distant ancestors of the Ainu aboriginal people of modern Japan, members of the heterogeneous Jomon culture (ca. 10,000-300 B.C.) left the clearest archaeological record [[http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field\(DOCID+jp0015\)](http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field(DOCID+jp0015))] (viewed September 16, 2007)].

These pairs of text show that the writer of the Wikipedia article is plagiarizing from the Library of Congress source. There are no citations given with the statements; only in the references-cited list is there a comment allowing that material is drawn from the Library of Congress source. It is clear that the Wikipedia wording is very close to that of the Library of Congress, only a few words having been changed. And a close comparison of the rest of the Wikipedia text and the Library of Congress text shows other plagiarized statements. If this is a high school paper my grade for it is “D” with a stern warning about the evil of plagiarism. If it is the paper of a university student, my grade is “F,” and I nose about to find what else in this shadowy line the student has been up to. If the paper is submitted by a graduate student, I move to have the student guided out the door and on to activity more suitable to the personality, and better-paying besides.

4. Jomon Dates: The dates for the Jomon Period given in this Wikipedia article are the standard generalized dates, and almost identical to the dates I have on my web page on the Jomon Culture <<http://www.t-net.ne.jp/~keally/jomon.html>>:

Wikipedia Dates		Keally Dates	
Incipient	14,000-7500 BC	Incipient	11,000-7500 BC
Initial	7500-4000 BC	Earliest	7500-4000 BC
Early	4000-3000 BC	Early	4000-3000 BC
Middle	3000-2000 BC	Middle	3000-2000 BC
Late	2000-1000 BC	Late	2000-1000 BC
Final	1000-400 BC	Latest	1000-500 BC
<p>1) The 500 BC date I give for the end of Jomon is based on the Latest Jomon-Early Yayoi transition; that date would be a few centuries older for the Latest Jomon-Incipient Yayoi transition in Kyushu.</p> <p>2) These dates are roughly the same as those given by Habu in Fig. 2.5 (Habu 2004: 39).</p> <p>3) Habu gives more detailed views of the Jomon dates in Fig. 2.6 and Table 2.4, based on Keally and Muto 1982 (Habu 2004: 41-42).</p>			

But that is where the similarities end. First, the Wikipedia date 14,000 bc is a *calibrated* radiocarbon date, whereas all the other dates in that list are *uncalibrated* dates. The chart of dates on my web site says very clearly that all the dates given are uncalibrated dates. And the Wikipedia discussion of Jomon dates (under the “Discussion” tab) is confusing and mostly erroneous. The writers involved in that discussion clearly do not know the detailed dates for the Jomon Period, nor do they understand the dating methods. Trying to clarify the issues in that confusing discussion would be difficult or useless. For those who are interested in comparing the Wikipedia discussion of Jomon dates to the dates given by the Japanese specialists in the field, the following chart will be helpful:

	Radiocarbon Ages	Calibrated Dates
Incipient Jomon: Plain	13,500-12,700 BP	ca. 16,200-15,000 calBP
Incipient Jomon: Linear-relief	12,700-11,400 BP	15,000-13,300 calBP
Incipient Jomon: Nail-impressed, etc.	11,400-9800 BP	13,300-11,200 calBP
Middle Jomon	ca. 4800-3900 BP	ca. 5450-4500 calBP
Late Jomon	ca. 4100-3100 BP	4550-3250 calBP
Jomon-Yayoi Transition	ca. 2700 BP	ca 2850 calBP
Incipient Yayoi: ending	ca. 2600 BP	ca. 2700-2750 calBP

1) This chart is modified from Keally 2004: 46.
2) The dates are based on Fujio *et al.* 2006; Harunari *et al.* 2003, 2004; Imamura *et al.* 2007; Keally *et al.* 2003; Kobayashi 2006; Kobayashi *et al.* 2002, 2003, 2004; Nakamura *et al.* 2001; Taniguchi 2004.
3) These authors are archaeologists and specialists in AMS radiocarbon dating, working together.
4) BP and calBP dates can be converted to BC or BCE dates by subtracting 1,950 years, or a rounded 2,000 years.
5) The Incipient Jomon Plain Pottery in the oldest sites dates about 16,000-15,000 cal BP; the following Linear-relief Pottery about 15,000-13,300 cal BP; and the Punctated, Nail-impressed, Impressed-cord, and Rolled-cord pottery types about 13,300-11,200 cal BP.

For more detailed information on Jomon dating see the following links:

Jomon Dates by Regions (2006) <<http://www.t-net.ne.jp/~keally/Chronologies/jomon-dates.html>>.

Jomon and Yayoi Dates in Aomori Prefecture (2000) <<http://www.t-net.ne.jp/~keally/Chronologies/aomori.html>>.

Middle Jomon Dates in Kanto (1999) <<http://www.t-net.ne.jp/~keally/Chronologies/kanto-midjomon.html>>.

And for discussion of some of the problems in Jomon dating see the following links:
“Fakery” at the Beginning, the Ending and the Middle of the Jomon Period (2004) (PDF file of Japanese translation)

<<http://www.jomon.or.jp/ebulletin11.html>>, and

<<http://www.jomon.or.jp/kiyou1-1charles.pdf>>.

Bad Science and the Distortion of History: Radiocarbon Dating in Japanese Archaeology (last revised May 14, 2004)

<<http://www.t-net.ne.jp/~keally/Reports/sir2004.html>>.

The First Radiocarbon Dates for Japan (last revised: April 14, 2004)
<<http://www.t-net.ne.jp/~keally/Reports/first-dates.html>>.

5. Writers and Discussants:

As far as I can determine from the content of this article on the Jomon Period and the discussion about it—and from clues in the bio material on the writers and discussants—no writer or discussant is a justified authority on the Jomon Period. Some contributors are university students or recent graduates with an interest in Japan, but no education or experience in Japanese prehistory. Others are just people interested in things Japanese. One writer has been “purged” from Wikipedia because of a conflict with the administration. One other gives the impression of being a huge egotist, writing myriads of articles on topics all over the spectrum. My teacher's instincts tell me that this stuff might fly in a high school class but not in college, and, really, I want better work than this from high schoolers, too.

The Wikipedia system requires that we judge each article separately, but no one among Wikipedia users—casual visitor or deadly serious researcher—has the time or understanding to search out and review evaluations or counterstatements of each Wikipedia article, in order to assess validity.

In contrast, printed encyclopedias and scientific and academic journals do not require much time to evaluate, and, once an article is evaluated, all articles are effectively evaluated. Printed encyclopedias and journals are not perfect; the writers, editors, and publishers have their slants and their perspectives, and are sometimes simply mistaken. But the print encyclopedia as repository of knowledge, for all of modern history emblematic of enlightenment itself, will never be displaced—that imposing row of heavy volumes constantly reminding us that we must study harder, and that we will never know enough. Prowling a library reference room after these unloved old books is free, it's fun, and there is not much traffic there anymore. Imagine for a moment the vast systems of compilation and editing that publishers of encyclopedia must have marshalled under close discipline to achieve these noble publications—here is further evidence that the attempt to make knowledge Wikipedia simple will always yield more simpleness than knowledge.

Before you dismiss this view as “elitism,” consider the possibility that I am simply being practical. Researchers take the work of research seriously. They need to find valid information and find it efficiently. This is not possible with Wikipedia, and here is perhaps the greatest problem in the Wikipedia system—the great amount of time required to check the potential accuracy of the information in any one article, and the nagging suspicion that a “valid” conclusion with regard the information in one article cannot be applied automatically to any other article. Hence, I have chosen the safer, easier, and decidedly faster approach—my conclusion of “invalid” (a

grade of “F”) for one article must necessitate a provisional judgment of “F” for all the rest of the Wikipedia articles in that area. No doubt there are some good and even accurate articles scattered about the vast Wikipedia wasteland, but I leave these to folks inclined to the treasure hunt. At this stage of life my time is better spent digging after shells and broken pots.

Concluding Remarks

Wikipedia is advertised as the ultimate in one-stop knowledge shopping, but I say *caveat emptor*. Wikipedia has bargains galore, but precious little of value. This is not a source of knowledge and it should not be advertised or recommended as such. A true democracy of knowledge may be described as a place where knowledge is equally available to all who have the will to knowledge. But the Wikipedia democracy is quite different. Here all persons are and have always been equally expert in all fields. And as the very concept of expertise fades away, so must the possibility of specialized knowledge itself. Wikipedia is democracy as an aftermath of the mob, with content provided by anybody—by main force of inclination or whim, or commitment! Sorting out reliable articles from the unreliable or simply bad is far too time-consuming (not to mention infuriating) for the senior researcher, and just not possible for the novice.

On the Internet, Google, among other such engines, is better than Wikipedia. With Google it is possible to begin a reasoned assessment of the likely reliability of the information by checking the organization operating the web site or posting the information. For topics in Japan archaeology, for example, archaeological organizations, museums, and universities are safe enough for professional and amateur alike in search of scholarly assistance.

And finally, just Google <+wikipedia +criticism> and read all about it. On 14 October 2007 I turned up 2,150,000 hits, with some very interesting reading in the first 20. The web page in first place was a criticism of Wikipedia found on Wikipedia (Criticism of Wikipedia <http://en.wikipedia.org/wiki/Criticism_of_Wikipedia>). Also near the top of the list of hits was an interesting article in *The Register* by Andrew Orlowski, dated October 18, 2005 (Wikipedia founder admits to serious quality problems <http://www.theregister.co.uk/2005/10/18/wikipedia_quality_problem/>). There was much else of interest lurking virtually out there; take your pick, or take all. Most articles were quite critical of the whole Wikipedia concept and content; others were critical of the critics.

Appendix: The Japanese Press on Wikipedia

Article #1: An article in my local Japanese-language newspaper (Yomiuri 2007a) reports that an employee of the Imperial Household Agency was punished for entering the Wikipedia site and editing several articles on Japanese prehistory (probably in Japanese but not specified). Here is an example: In the Wikipedia article on “Imperial Tombs” (in the precincts of which archaeological digging is not ordinarily permitted) there was once the sentence: “There is the view that the Imperial Household Agency fears evidence will be found that destroys the emperor system from its very base.” The employee of the Imperial Household Agency changed that content to read: “At present, the imperial tombs are places of worship for the imperial family, so archaeologists cannot be granted free access.”

To those who may prefer the original sentence, I ask this: Are you going to let a bunch of archaeologists dig up your family graves just because they have some academic interest in your ancestry? The Imperial Household Agency employee was punished for making this change (and other changes in other articles) using an Agency computer, but he did have a point. The idea that the Imperial Household Agency does not allow archaeologists to excavate the tombs because of fears of what they might find is an idea that is widely circulated, and often by persons with an agenda of grievances against the imperial family or against Japan itself.

Article #2: Another article in the evening edition of the same Japanese newspaper (Kondo 2007) three days later offers criticism of the content of a Wikipedia article on public construction projects in Japan. The article notes that someone has written into that article certain sentiments that are favorable from the point of view of the bureaucracy:

Example A: “short-sighted criticism that does not understand the original purpose of construction” [a complaint about people who oppose public construction projects].

Example B: “Public construction as well is all the more necessary and meaningful because the population is decreasing” [implying criticism of people who argue that public construction projects should be reduced because the population is declining].

The reporter suggests that people with a specific ax to grind—an interest not necessarily following from concern for the commonweal—may influence the content on Wikipedia and thus influence the ideas of the people who use Wikipedia as a source of information.

Article #3: A news article on 5 October 2007 reported that Wikipedia founder, Jimmy Wales, has refused to accept the Chinese censorship required of information

agencies seeking to gain entry into the Chinese market (Yomiuri 2007b). Both Yahoo and Google have accepted Chinese oversight and censorship, but Wikipedia has not, and has thus been blocked out completely for two years. The article goes on to say that the 7,000,000-odd of Wikipedia articles are written in 250 different languages.

Given the view that Wikipedia is likely the world's greatest purveyor of misinformation, constituting a virtual war against earned authority, one may almost sympathize with the Chinese rulers on this one. But let us pause to remember the difference between authoritative and authoritarian.

Article #4: A second article on the same day (Yomiuri 2007c) reports that six employees of the Ministry of Agriculture, Forestry, and Fisheries were given strong warnings for using office computers to write into Wikipedia articles on subjects not related to work. These employees had altered articles 408 times since 2003, and two-thirds of the content was personal. An example: One employee erased the term “crushing defeat” and replaced it with “narrow defeat” in a Wikipedia article about the lost election of a former manager of the Ministry.

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knowledge: “the body of facts, etc. accumulated by [hu]mankind” (*Webster's New World Dictionary of the American Language*, 1975). “...knowledge ought to be a report of some permanence beyond the bawl of opinion” (SIR editor). An Encyclopedia should be giving us knowledge, not just information.

information: “something told or facts learned; news or knowledge” (*Webster's New World Dictionary of the American Language*, 1975). “Anybody can report on anybody's opinion, and that is information surely...” (SIR editor). Wikipedia is giving us information, but it is difficult to separate what of this is opinion for the nonce and what of this is widely accepted knowledge.

fact: “reality, truth; something stated as being true” (*Webster's New World Dictionary of the American Language*, 1975). Facts are what we think is reality or truth, but occasionally “facts” are not reality or truth. In archaeology, and most of the rest of the world of knowledge, nothing is proven, just well supported. Even “facts” need to be treated with some caution, especially in archaeology.

data: (singular: datum) “facts or figures from which conclusions can be drawn” (*Webster's New World Dictionary of the American Language*, 1975). In archaeology, “Data arise only from observations made on [excavated] objects” (David Hurst Thomas, *Archaeology*, 3rd ed., Harcourt Brace, 1998, p. 68). Data for archaeology represent the closest possible approach to “proven”

facts. Archaeological knowledge is constituted of data. But much of what archaeologists present to the world is interpretation, some of which is little more than opinion. These interpretations should not be confused with data or facts. They are a species of information that may function in the stead of knowledge if widely accepted.

assumption: “a supposition; something taken for granted” (*Webster's New World Dictionary of the American Language*, 1975). Archaeologists “assume” certain facts when these are needed to develop an hypothesis, aware that the assumed facts and hypothesis they support are not beyond question. Any valid “question” is made clear in the statement of the hypothesis.

bias: “partiality; prejudice” (*Webster's New World Dictionary of the American Language*, 1975). “... general theoretical leanings” (Thomas, p. 71). Every individual has biases-partialities that result from the accumulated experience of each individual life. Personal biases must be made clear by archaeologists.

accurate: (opp. erroneous; fact vs. fiction) “1. careful and exact 2. free from errors” (*Webster's New World Dictionary of the American Language*, 1975). In archaeology, this often means we think something is free from errors, but also that we understand the provisional nature of knowledge that follows from a never-ending inquiry.

quality: “the degree of excellence of a thing” (*Webster's New World Dictionary of the American Language*, 1975).

reliable: (opp. unreliable) “that can be relied on” (*Webster's New World Dictionary of the American Language*, 1975). In archaeology, this means that some purported fact appears trustworthy—i.e., there is no reason not to trust its accuracy.

rely: “to trust” (*Webster's New World Dictionary of the American Language*, 1975).

useful: (as in: useful information) “that can be used; serviceable; helpful” (*Webster's New World Dictionary of the American Language*, 1975). In archaeology, this is the weakest judgment on the potential accuracy of a purported fact.

valid: (opp. invalid) “1. having legal force 2. based on evidence or sound reasoning” (*Webster's New World Dictionary of the American Language*, 1975). In archaeology, this means that some purported fact has been studied long and hard, and no reason has been found not to trust its accuracy.

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