



World Heritage Registration and Tourism Trend

— Analyzing 10 cases in Japan —

Akira Sawamura

Introduction

Public-private movements for world heritage registration are developing in various regions in Japan, and they have created the world heritage boom. People involved in these movements anticipate that world heritage registration will increase tourism and enhance regional development. However, does world heritage registration really increase tourism? Mass media often report on increased numbers of tourists with the phrase “world heritage effect,” but no research has been conducted to verify whether world heritage registration increases the number of tourists. This paper picked 10 cases registered as world heritage sites in the early stage of the world heritage boom and verified statistically whether world heritage registration increased tourist numbers, by comparing the numbers of tourists in the 10 years before registration and with the numbers in the 10 years after. The 10 cases covered by this paper are Horyu-ji Temple, Himeji Castle, Yakushima Island, Shirakami Mountains, Kyoto, Atomic Bomb Dome, Itsukushima Shrine, Nara, Nikko, and Ryukyu. A survey of the 10 cases revealed that world heritage registration increased the number of tourists only in three cases: Shirakami Mountains, Nara, and Nikko. Based on the survey results, this paper indicates that the policy concerning world heritage registration lacks validity.

1. Problem consciousness

UNESCO’s Convention Concerning the Protection of the World Culture and Natural Heritage (World Heritage Convention) was originally proposed as an international movement to protect structures that would be destroyed by the construction of the Aswan High Dam in Egypt. The World Heritage Convention was enacted in 1972. Japan, however, did not accede to it until 1992, hesitating on the grounds that Japan had a well-established domestic system to protect heritage, including the Law for the Protection of Cultural Properties, and that Japan would most

likely have to pay much in subsidies to developing countries once it became a member.

Japan acceded to the World Heritage Convention in 1992, and Buddhist monuments of the Horyu-ji area, Himeji Castle, Yakushima Island, and Shirakami Mountains were registered as world heritage sites in 1993. A total of 11 areas were registered in the 20th century. The Agency for Cultural Affairs invited public participation and asked every prefecture to submit a “provisional list” in 2006 and 2007. As a result, public-private movements to activate the tourist business through world heritage registration spread across the country and resulted in the world heritage boom.¹

It has not been verified that world heritage registration increases the number of tourists, though many people expect it to increase the number of tourists. This paper aims to clarify, by verifying statistically the numbers of tourists to the world heritage sites registered in the early stage, whether world heritage registration has increased tourists and whether the public-private movements for registration are wasteful. Because the movements are funded by the government, it is not a good idea to continue them if they do not play a significant role in increasing the number of tourists.

2. Voices for increases in the numbers of tourists through world heritage registration

Newspaper reports on the voices for increasing the numbers of tourists through world heritage registration are quoted, two from cases in the initial years and two from recent ones.²

Example 1 from the initial years: Asahi Shimbun, December 16, 1994, Morning edition, Kyoto section

Headline: Expecting an increase in the number of tourists – People in the city celebrate the world heritage registration of a temple and a shrine in Uji-Kyoto

----- Kosaku Nishida, 36-year old salesperson at a tea sales outlet, has great expectations of the world heritage registration, saying, “World heritage registration is a good advertisement to the world. I strongly hope for an increase both of tourists and sales.”

¹ Arai (2008) has said that the movements activated for world heritage registration of historic sites and natural landscapes in every region of the country affected the introduction of an open application system. Those movements were a result of the world heritage boom caused by the trend of the media and tourism industry aimed at increasing travel demand in the mid-1990s, after the World Heritage Convention was joined.

² From the database of articles of Asahi Shimbun and the Nifty database of newspaper articles.

Example 2 from the initial years: Asahi Shimbun, December 9, 1996, Morning edition, Hiroshima section

Headline: Itsukushima Shrine holds a ceremony and breaks open a ceremonial sake barrel to celebrate its world heritage registration, Miyajima-cho, Hiroshima Prefecture

----- Itsukushima Shrine draws many tourists from early in the morning, though the tourist season is over. Chief priest Motoyoshi Nosaka said, “We need to prepare for a possible increase of tourists besides protecting the cultural properties.”

Example 1 from recent times: Niigata Nippo, October 7, 2010, Morning edition

Headline: Sado Gold and Silver Mine is put on the provisional list, increasing expectations for vitalizing tourism. Officials say, “We have only gotten started.”

----- Iwami Ginzan Silver Mine received about two times more tourists after it was registered as a world heritage site than before. The tourism business places great expectations on the registration because tourism of Sado has been stagnant lately.

----- Hotel Mancho in Aikawaoritomachi of Sado city is getting excited, saying, “We are very glad to know that Iwami Ginzan Silver Mine was put on the provisional list. Although it is unknown when it will be registered as a world heritage site, we strongly wish it to be registered as soon as possible and to be a driving force to promote the tourism of Sado.”

Example 2 from recent times: Asahi Shimbun, August 24, 2012, Morning edition, Gunma section

Headline: A great increase of summer tourists, Tomioka Silk Mill is formally recommended as a world heritage site, Gunma Prefecture

----- It was formally decided on August 23, 2012, that the government recommends “Tomioka Silk Mill and Heritages of the Silk Industry” to UNESCO’s world heritage program as a national policy. The number of tourists increased dramatically this summer over the same period of last year, showing that the “world heritage effect” is already working.

This paper aims to verify if these expectations are realized. Some people, however, are worried about the increase in the number of tourists that is a result of world heritage registration.

(Watanabe et al. 2008, Yoshida 2011). In addition, some weeklies ran articles on the inconvenience that residents suffered because of increased tourism after cultural properties were registered as world heritage sites (Fukuda 2009).

3. Previous research

This section examines previous research on whether world heritage registration resulted in an increased number of tourists.

Watanabe et al. (2008) and Yoshida (2011), mentioned above, discussed the increase in the number of tourists and responses to the increase; the latter did not use statistical data. The former only clarified that the number of tourists was on the rise in Yakushima Island, Shirakami Mountains, and Shiretoko, with the help of data published by each municipality. Fukuto (2005) comprehensively examined the effect of world heritage registration on cultural heritage. In his research, Fukufuji picked 11 heritage sites, from Horyu-ji Temple to Okinawan Fortresses, and examined the numbers of tourists before and after they were registered as world heritages. He classified the 11 heritage sites into the following three groups:

Type A : Cases that recorded a rapid increase after registration

Shirakami Mountains, Yakushima Island, Shirakawa-go, and Ryukyu

Type B : Cases that maintained almost the same number of tourists

Kyoto, Atomic Bomb Dorm, Nara, and Nikko

Type C : Cases that recorded a decrease even after registration

Horyuji-Temple, Himeji Castle, and Itsukushima Shrine

The survey conducted by Fukuto only calculated the number of tourists by single regression analysis, using the registration year as the explanatory variable. Therefore, his survey is not precise because it did not take into consideration the trend before the registration. Nonetheless, Arai (2008) quoted Fukuto's research results uncritically. Both reports are now easily obtainable on the Internet, but their validity is questionable.

This paper examines whether the number of tourists increased through world heritage registration by checking the trends before and after registration.

4. Research method

This study chose 10 sites registered as world heritage sites in the early stage and looked into the difference in the number of tourists between the 10 years before and the 10 years after registration. A span of 20 years was selected for the following three reasons:

- (1) It is impossible to select a longer time span because Japan acceded to the World Heritage Convention in 1992. It is necessary to expand the span to 10 years after registration to examine double-digit cases.
- (2) Tourism statistics are not reliable, and it is impossible to conduct a cross-section analysis. Even in a time-series analysis, it is impossible to determine the trend if the survey method changed. In the first place, few municipalities have well-established tourism statistics as the time span grows longer.
- (3) It is necessary to take the overall trends before and after the bubble into consideration (Fig. 1). That is, the number of tourists increased annually until 1994, just before the bubble, and no consistent trend can be observed after 1995.³

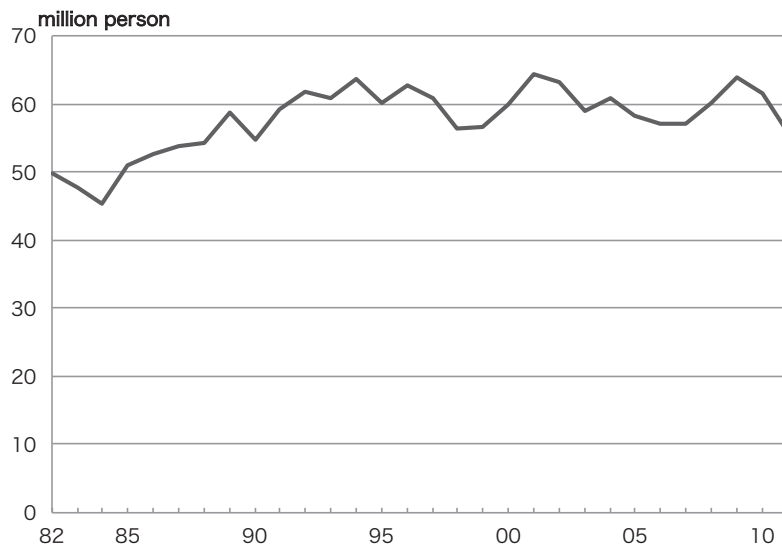


Figure 1 Nationwide trend of tourists (from the White Paper on Leisure)

³ The simple linear regression analysis of the data in Fig. 1 that used year (y) as the explanatory variable and the number of tourists (T) as the non-explanatory variable gave $T = -6,478.75 + 135.99y$ and $R^2 = 0.8$ for the period between 1982 and 1994. Because the T value of the coefficient of the explanatory variable was 9.12, it can be said that the number of tourists increased annually. However, no significant results were obtained after 1995.

The second tourism statistics from the top on the above figure are not reliable. Many municipalities sum up the number tourists of all sightseeing spots within their respective geographical boundaries. Kyoto city, for example, sums up the number of tourists of all sightseeing spots including Kinkaku-ji and Kiyomizu-dera. That is, the difference between the gross number of tourists of all sightseeing spots and the net number of tourists of each sightseeing spot is great. However, some municipalities publish the net number of tourists of each sightseeing spot. Accordingly, it is impossible to conduct cross-sectional comparison between municipalities. However, it is possible to examine the yearly change inside the same municipality if the survey method remains unchanged. This paper compared numbers of tourists between the 10 years before and the 10 years after registration and clarified if a significant difference exists. The model in Fig. 2 was used for this purpose.

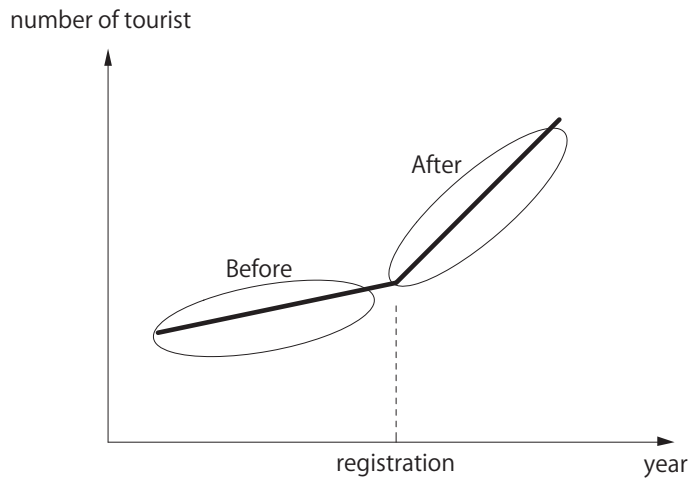


Figure 2 Concept of the model

It is possible to clarify if there is a significant difference between the inclination before and after with the help of the coefficient dummy method. The γ in the following formula is the value of significance.

$$T = a + \beta t_i + \gamma D_i \quad (1)$$

T : Number of tourists

t_i : Year (1, 2, ..., 11 = registration year, ..., 20)

D_i : Dummy after world heritage registration (0,1: 1 at $i \geq 11$)

The heritage sites that were registered in the early stage and have data on tourists for a span of 20 years, that is the 10 years before and the 10 years after registration, are as following Table 1:

Table 1 World Heritage sites registered in the early stage

No.	Name of heritage site	Type	Registration year
1	Buddhist Monuments of the Horyu-ji Area	Cultural heritage	1993
2	Himeji Castle	Cultural heritage	1993
3	Yakushima Island	Natural heritage	1993
4	Shirakami Mountains	Natural heritage	1993
5	Cultural properties of the Ancient Capital of Kyoto	Cultural heritage	1994
	(Historic Villages of Shirakawa-go and Gokayama)	Cultural heritage	1995
6	Atomic Bomb Dorm	Cultural heritage	1996
7	Itsukushima Shrine	Cultural heritage	1996
8	Cultural properties of the Ancient Capital of Nara	Cultural heritage	1998
9	Temples and shrines of Nikko	Cultural heritage	1999
10	Properties of the Kingdom of Ryukyu	Cultural heritage	2000
	(Shiretoko Peninsula)	Natural heritage	2005
	(Iwami Ginzan Silver Mine)	Cultural heritage	2007

Of the above heritage sites, this paper analyzed the 10 numbered heritage sites, using data on tourists from the tourism statistics published by each municipality. Basically, the number of tourists is the number of people who visited the city, town, and village where the heritage site is located. In the case of Ryukyu (Okinawa), however, the number of tourists is the number of people who visited Okinawa Prefecture. The three unnumbered heritages will be discussed later.

5. Verification results

Table 1 shows the verification results. Only three out of the 10 heritage sites recorded a significant difference between numbers before and after the registration. They are Shirakami Mountains, Cultural Properties of the Ancient Capital of Nara, and Temples and Shrines of Nikko. The significance level was 5%.⁴

⁴ The results remain unchanged even if the significance level is set at 1% or 10%.

Table 2 Verification results (Significance level is 5%)

No.	Heritage site	β (T value)	γ (T value)year	R ²	Significance
1	Horyu-ji Area	-204.3(5.35)	54.73(1.99)	0.87	
2	Himeji Castle	271.18(2.39)	-74.48(-0.91)	0.46	
3	Yakushima Island	17.52(4.21)	3.83(1.21)	0.92	
4	Shirakami Mountains	15.61(2.24)	12.60(2.51)	0.89	*
5	Kyoto	268.81(1.55)	-76.96(-0.62)	0.22	
6	Atomic Bomb Dorm	151.60(3.08)	-26.33(-0.74)	0.68	
7	Itsukushima Shrine	15.28(0.78)	-18.93(-1.35)	0.07	
8	Nara	-196.72(-3.58)	83.26(2.11)	0.53	*
9	Nikko	-189,601(-3.90)	75,559(2.17)	0.6	*
10	Ryukyu	168,821(8.07)	5,218(0.35)	0.96	

Accordingly, the heritage sites mentioned above can be classified into the following four groups:

- A) The number of tourists increased significantly after world heritage registration
- 1) The number of tourists decreased before registration but increased after registration:
Nara, Nikko
 - 2) The number of tourists had been increasing before registration, and the increase accelerated after registration:
Shirakami Mountains
- B) The number of tourists are constantly increasing, regardless of registration:
Himeji Castle, Yakushima Island, Atomic Bomb Dorm, Ryukyu
- C) No clear trend can be observed:
Kyoto, Itsukushima Shrine
- D) The number of tourists have been decreasing without showing any sign of touching bottom:
Horyu-ji

Analyzing the above four classifications one by one revealed interesting points. Both Nara and Nikko, which recovered from the decreasing trend they had before registration, are sightseeing areas that were famous worldwide even before they were registered as world heritage sites. They are supposed to have got out of the decreasing trend after the bubble, but the recovery they recorded is not the so-called V-shaped recovery, judging from the two coefficients of β and γ .

That is, the analysis of the entire span of 20 years indicates that the increasing trend they showed is nothing but a recovery from the decreasing trend. On the other hand, Shirakami Mountains, classified in the same group, clearly gained momentum in the increasing trend.

The heritage sites classified into Group B increased the number of tourists consistently. They did not show any significant change after world heritage registration. As for Group C, it is hardly possible to say whether the number of tourists increased. The number of tourists of Kyoto is the total number of tourists of Kyoto city and Uji city, and Uji city alone is classified into Group B.

Some people say that before Japan acceded to the World Heritage Convention in 1992, locations in Group B, including Yakushima Island, would be registered as world heritage sites sooner or later. Their opinion, however, is not necessarily right on target. Results of the search of Asahi Shimbun indicate that the phrase world heritage started to appear after 1992 (Fig. 3).

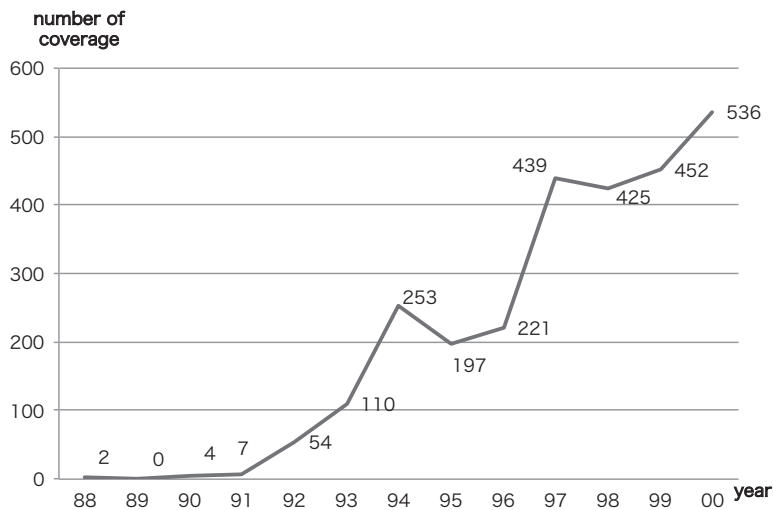


Figure 3 Frequency with which the phrase *world heritage* has appeared in Asahi Shimbun
(Created by the author from the search service of Asahi Shimbun)

6. Other three cases

This section discussed Shirakawa-go, Shiretoko Peninsula, and Iwami Ginzan Silver Mine.

It was impossible to analyze Shirakawa-go in the same way as other heritage sites because it changed its statistical method in the third year after registration.⁵ Comparison of the 10 years

⁵ Total (gross) number was published until the second year (1997) after registration, and real (net) number of tourists was published beginning in the third year (1998).

before registration and the 10 years from the 3rd year to the 13th year after registration produced a significant difference. The Tokai-Hokuriku Expressway was extended gradually after Shirakawa-go was registered as a world heritage site in 1995, and the entire line was opened in 2008, the 13th year after registration. Taking the improved traffic access, it is hardly possible to tell which of the two, world heritage registration or improved traffic access, affected the increase of the number of tourists.

At the same time, neither Shiretoko Peninsular nor Iwami Ginzan Silver Mine allows the same kind of analysis because 10 years have not passed yet since they were registered as world heritage sites. Judging from the numbers of tourists for several years before and after they were registered as world heritage sites, they show a decreasing trend after registration (Fig. 4).⁶ If data for a longer span become available, it may be possible to verify these two cases statistically by using the registration year as the dummy coefficient.

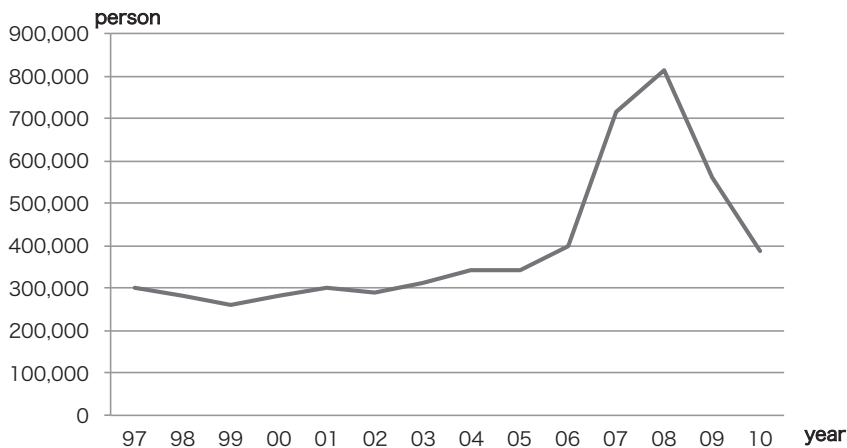


Figure 4 Trend of tourists of Iwami Ginzan Silver Mine

7. Policy implications and issues left unsettled

Only 3 of the 10 areas registered as world heritage sites in the early stage saw a significant increase in the number of tourists after registration. In addition, two of the three showed an increase that is nothing but recovery from a decreasing trend. At present, there are many ongoing public-private movements for world heritage registration across the country. Naturally, public funds and human resources are invested. However, judging from the above results, it is

⁶ As for Shiretoko Peninsula, please refer to the article titled “Verifying the statistics of tourists to Shiretoko: Is the number of tourists decreasing?” published by Hokkaido Fan Magazine. The web page is http://pucchi.net/hokkaido/shiretoko/g_sightseen.php. The article was accessed on April 1, 2013.

highly likely that the movements will result in wastage of resources.

What is necessary is not to increase the number of tourists through world heritage registration but to build a region full of attractions that can draw tourists. World heritage registration is merely one of the alternatives in the process of regional development. Partly because UNESCO has been growing stricter in allowing registration because the number of world heritage registrations has reached as many as about 1,000, it has become harder to acquire a world heritage registration. In addition, world heritage registration does not always contribute to the promotion of tourism. Nakamura (2006) and Sataki (2009) have already pointed out in their books the problems with the policy of seeking world heritage registration as a measure to promote tourism.

On the other hand, some cultural heritage sites draw tourists continuously for a long period without being registered as world heritage sites. For example, Tsumago-juku, known as the birthplace of the movement for the preservation of Japanese streets, has been drawing more than 600,000 tourists annually since the late 1970s. It is introduced in an English travel guidebook (Schutz 2003, pp. 431-438), and foreign tourists can be found in this cultural heritage area. Of course, even Tsumago-juku has several issues. For example, the first generation involved in the preservation movement has retired, and most of the second generation has moved to Nagoya and Tokyo. The future of Tsumago-juku as a sightseeing spot remains uncertain.⁷

At the same time, two issues are left unsettled. One is whether there are any factors other than world heritage registration that affect the number of tourists. It is quite natural that some other factors exist, but they cannot be generalized easily. The other is the reliability of tourism statistics. This issue seems likely to improve in the future because the Japan Tourism Agency has improved the method of statistical survey. However, interface between data before the improvement and those after remains to be established.

⁷ Please refer to Sawamura (2010) for the verification of sightseeing in Tsumago-juku.

References

- Arai, N. (2008), “Sekai-isan touroku to Jizokukanou na Kankouchi-dukuri ni kansuru Ichikosatsu (An Analysis of World Heritage Registration and Building a Sustainable Sightseeing Spot),” The Society of Regional Policy of Takasaki City University of Economics, *Study of Regional Policy*, 11(2), pp. 39–55.
- Fukuda, M. (2009), “Sekai-isan Touroku no Urugawa, Chiiki ga Tohou ni Kureteiru (Feature: The Hidden Side of World Heritage Registration – Local People Are at a Loss),” *Shukan Shincho*, November 19, 2009, pp. 50–53.
- Fukufuji, K. (2005), “Sekai-isan Touroku niyoru Keizai-hakuyu Kouka no Bunseki (An Analysis of Economic Ripple Effect of World Heritage Registration – with the Focus on the 88 Places of Shikoku as the Case),” Ehime Center for Policy Research.
- Japan Productivity Center (1982–2011), *Rejah Hakusho* (White Paper on Leisure), Japan Productivity Center Publishing.
- Nakamura, S. (2006), *Sekai-isan ga Kieteyuku* (World Heritages Are Disappearing), Chikura Publishing.
- Sataki, Y. (2009), *Sekai-isan no Shinjitsu* (Realities of World Heritage), Shodensha Shinsho.
- Sawamura, A. (2010), *Bunka-isan to Chiiki-keizai* (Cultural Heritage and Regional Economy), Doseisha.
- Schutz, P. (2003), *1,000 Places to See Before You Die*, Workman Publishing.
- Takagi, K. (2012), *Dounaru Kamakura Sekai-isan Touroku* (Will Kamakura Be Registered as a World Heritage?), Parehdo.
- Watanabe, T., et al. (2008), “Kankou no Shiten kara Mita Sekai-shizen-isan (World Natural Heritages from the Sightseeing Perspective),” *Chikyu Kankyo*, 13(1), pp. 123–132.
- Yoshida, H. (2011), “Kankou to Sekai-isan, Shirakami-sanchi wo Megutte (Sightseeing and World Heritage: On Shirakami Mountains),” The International University of Kagoshima, *Regional Studies*, 38(2), pp. 1–15.
- The tourism statistics of the following prefectures were used for the research: Aomori, Gifu, Hiroshima, Hyogo, Kagoshima, Kyoto, Nara, Okinawa, Shimane and Tochigi. The department in charge of tourism in some of these prefectures supplied old data as pdf files, for which the author wishes to express profound gratitude.