

## 名所図会からみた京都巨椋池地域の名所空間分布及び水辺空間構造に関する研究

Distribution of Scenic Sites and Composition of Waterside Space Surrounding the Former Oguraike Pond Based on Edo-period Meisho-zue (pictures of noted places)

康 寧\* 今西 純一\*\* 深町加津枝\*\*

Ning KANG Junichi IMANISHI Katsue FUKAMACHI

**Abstract:** The conservation and restoration of the Oguraike Pond has become a critical issue during the recent construction of water and greenery networks in the Kinki region. In order to find hints and efficient ways to restore the wetland landscape, it was necessary to identify the characteristics of both the original natural landscape and the associated cultural context surrounding the pond. This research utilized a database of Edo-period meisho-zue (pictures of noted places) and extracted drawings, descriptions and geographical locations of selected scenic sites to analyze waterside landscape elements, landscape spatial patterns, and the distribution of scenic sites around Oguraike Pond during the Edo period. The results revealed rich waterside culture concerned with waterborne transportation, commerce, fisheries, and recreation. The waterside culture of the time appeared in the pictures as ferries, market boats, fishing boats, and boats for recreation, as well as by a range of human boating activities. Nine main types of Edo-period landscape spatial pattern models were found to have constituted the wetland landscape surrounding the Oguraike Pond. They were mainly comprised of ponds, rivers, fish pools, settlements, shrines/temples, tea cultivated lands, and paddy fields. Most of temples, shrines, and settlements in the Suzaku direction of Kyoto were located within 0–4 km of Oguraike Pond.

**Keywords:** *Oguraike Pond, Meisho-zue, scenic sites, waterside landscape, spatial composition*

**キーワード:** 巨椋池, 名所図会, 名所空間, 水辺景観, 空間構成

### 1. Introduction

The former Oguraike Pond (drained in 1933) and surrounding wetlands have attracted new interest during recent discussions on the conservation and restoration of that area in the framework of the construction of water and greenery networks in the Kinki region<sup>1)</sup>. In order to receive hints for the restoration of these former wetlands, it is necessary to identify the former state of the Oguraike Pond and surrounding wetland landscape and of its cultural context based on careful examination of historical sources.

As for previous studies analyzing waterside landscapes, the history of the greenery landscape and human activity along the Yodo River were analyzed using the artworks of Yodogawa-Ryogan-Ichiran<sup>2)</sup>. The composition of waterside space of the Edo city was investigated using the Edo-period meisho-zue<sup>3,4)</sup>. The development of waterside human activity in Japan was studied based on pictures of noted places<sup>5)</sup>. Consequently, pictures of noted places, ukiyoe, and art pieces of Settan Hasegawa and Hiroshige Ando could be utilized as study objects to explore historical waterside landscape<sup>3,4,5)</sup>.

There were only few artworks referring to the Oguraike Pond. This research utilized a database of Edo-period meisho-zue (pictures of noted places) and extracted drawings, descriptions and the geographical locations of selected scenic sites to (1) investigate the waterside landscape characteristics of the former Oguraike Pond and of the surrounding wetland landscape based on an analysis of waterside elements; (2) study the landscape spatial composition on and around the former Oguraike Pond based on an analysis of the landscape from different viewpoints; (3) explore the location of scenic sites and the relationship between the distribution of scenic sites and the location of the Oguraike Pond. Overall, the scenic landscape and waterside culture (today lost) of the Oguraike Pond and surrounding wetland before its reclamation (in 1933) were explored under the objective of wetland landscape restoration.

### 2. Methodology

#### (1) Study site

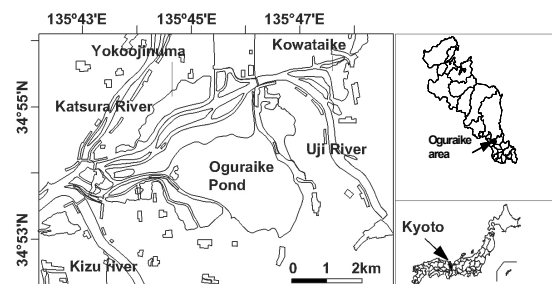


Fig.-1 Location of the study site

The former Oguraike Pond was located at the confluence of the Katsura, Uji, and Kizu Rivers in the southern part of the Kyoto Basin (Fig.-1). It was a vast reservoir of approximately 794 ha<sup>6)</sup>, and known in Kyoto city as Suzaku<sup>7)</sup> in relation with the Fengshui theory<sup>8)</sup>. Oguraike Pond had originally been shaped by floodwater<sup>6)</sup>. The surrounding wetland comprised pond, river, and paddy fields. In 1933, however, land was reclaimed and the landscape underwent significant change<sup>6)</sup>.

#### (2) Extraction of scenic sites in the Suzaku direction of Kyoto

Based on the fact that Oguraike Pond was Kyoto's Suzaku<sup>7)</sup>, we extracted descriptions of 413 scenic sites in the Suzaku direction of Kyoto<sup>9)</sup> from the meisho-zue database of scenic sites<sup>10)</sup>. The Meisho-zue are guide books to Kyoto published in response to the popularization of travel in the mid to late Edo period. Gardens, scenic spots, and the precincts of shrines and temples are explained in detail and illustrated in bird's-eye view. We consulted the following collections of meisho-zue descriptions, geographical locations, and pictures of noted places in the database: Miyako-meisho-zue (written by Rito Akizato and illustrated by Shunchosai Takehara, 1780), Shui-miyako-meisho-zue (written by Rito

\*京都大学大学院農学研究科

\*\*京都大学地球環境学堂

Table-1. Categories of scenic sites with geographical location in the Suzaku direction of Kyoto

Categories	Scenic sites situated in the Suzaku direction of Kyoto
Temple	Daichiji, Jubosankoba, Gansenji, Jururidera, Kaseyamafudo, Ichigonji, Fudasanzenjoji, Omido, Jakukosan Zenpukuiji, Kameiyama shingonin, Taharashinnonogobyo, Kontaiji, Kasaidera, Shindoi, Yakushido, Shuonan, Komyoji, Shiroshakado, Ryukantera, Hokkedo, Hototera, Bukkokudera, Kaihoji, Sekihouji, Hinoyakushi, Dochoji, Tosenji, Chokutaninanzenin, Sokujojin, Zenpukuiji, Saitokuiji, Zuikouji, Shinshuin, Marmorin, Gonoji, Daigoji, Joani, Kashoji, Anrakugyojin, Soanji, Sorinji, Honseiji, Kitamukifudoin, Ishiyakushi, Saigyotera, Saikyuiji, Saiganji, Shokakuji, Jobodain, Jonenji, Shokomyoin, Kokubunji, Kunoji, Kameiyakushi, Anrakujin, Byodoin, Eshinin, Konjikinshirayamagongen (konjikin), Koshotera, Hashidera, Chokenji, Ryominadera, Aburakakeyamasaganji, Myojin, Horikyoji, Bokuserin, Hokokuiji, Yakushuin, Nenkotera, Higashihonganjiqobo, Daikokuiji, Daikoi, Shoryutera, Saihoji, Seiontera, Hozoin, Shurenan, Tsukihashitera, Koshoji, Kaigenji, Genkuuji, Kanonji, Ryuunji, Zenpukuiji, Enpukuiji, Shohouji, Obakusanmanpukuiji, Tonaan, Mimurotoji, Fushojizo(Nogoin), Hamayakushi(Murakamitera), Mikotokatsuyamagayoji, Anrakuji, Yakurenji, Saihoji, Jofukuiji, Iwaohirayamaryuanji, Hoodo, Kosekian, Amidaji, Azumaaketera, Seiganji, Kyochutera, Aido, Senkyoji, Dokannon, Kokubunji, Kaishu Yamadera, Gannoji, Dandanyofudodo, Nakouji, Kanimanji, Takakuranomiyareibyo, Gyokuseiji
Shrine	Hachimangu, Omiyamyoin, Gozutenosha, Kabutonosha, Tenjinmori, Tenjingu, Tominotenjingu, Kakosha, Fujimorinjia, Ishidamori, Yoshitoshikuhachimangu, Tanakatennosha, Hachimangu, Tenmangu, Futoujingu, Morisumiyoshisha, Jonanjinia, Juuzenjisha, Sanno omiya, Kuqajinia, Rikyuhachimangu, Kennosha, Bashihimenosha, Airmainariyashiro, Momoyamatenmangu, Tenmutennosha, Gokogu, Kinsatsugu, Mitamasha, Gozutenosha, Iwashimizuachimangu, Kawaguchitenjingu, Ukifunemiyu, Kibatajinia, Tanaka noyashiro, Ahonhachimangu, Kurikumatenjinia, Mimakhachimangu, Shinmeigu, Kusejinia, Okurajinia, Isedajinia, Atagosha, Yodohimesha, Matsunosha, Kurisutenjingu, Mitamasha, Kamosha, Kasuoasha Yunomori, Kaiwarasha
Villa	Kasainokoku, NikurivakiKuribavashi, Godaigotengokoku, Tohariku, Goshouchi, Goshovashiki, Uibetsugo, Fushimi kokyo, Gokasho, Kanakataku, Kamenoharaku
Tomb / historic site	Shitsukidzuka, Sarumarudayuakuyuseki, Daidoujiyuseki, Shinnishidzuka, Naqaikeyushi, Fushiminyo, Joganjiyuiji, Daigotennoryo, Ninmyotennoryo, Mikoshifun, Shosenkonofun, Nyogosadakohaka, Shigehiranodzuka, Sujakutenogoryo, Kurumadzuka, Sakuradzuka, Gofushiminyo, Gokurakujinokuyuseki, Indzuka, Koidzuka, Bifukumonin Noryo, Konoenryo, Fushiminyo, Kanmutennoryo, Nyohokyojizuka, Ominaeshidzuka, Uchizatotsuka, Otsuka, Fakahaka, Saihoimidajirokuyuseki, Jomyojikyuseki, Nanatsudzuka, Kajitsuka, Izumishikibuhaka, Shigehirakubiaraikekeiarachi, Komaderanokuyuseki, Kunikyoto, Tsudzukinomyato, Komyosenjikyuseki, Tachibananomoreokuyuseki, Wakashitsutsumisadainjikyuseki
Bridge / landscape furniture	Inekamado, Jifaki, Kasagi Yamameiseiki, Nenbutsuishi, Nakiishi, Jurokumatsu, Chomeihoseki, Chinjumatso, Sekizogohyakurakan, Miryutei, Ujibashi, Tokorotenbashi, Kanahashi, Chonomatsu, Kyofujinbosatsusesshosekaitoba, Kageroishi, Hitsu Kawahashi, Bungobashi, Yodoohashimagohashi, Izumikawabashi, Kotfunaseki, Uguisunotaki, Inotaki, Kazaana, Gebaishi
Settlement/ place name	Suyamakomiyamayouchido, Soraku, Kamenohara, Ichinosaka, Kakoku, Sarumarukoshi, Chinju, Sannomiya, Kamei, Ujitawara namura, Tahara, Kidzusato, Takigimura, Mitasaka, Uzuranoyuka, Ribi, Kohatasekimoriyashiki, Kiridani, Yashimatouge, Kashiwarabano, Taniguchi, Okamedani, Fukakusano, Fukakusato, Fukakusashojonokayohiji, Shitsukidzuka, Sarumarudayuakuyuseki, Daidoujiyuseki, Shinnishidzuka, Naqaikeyushi, Fushiminyo, Joganjiyuiji, Daigotennoryo, Ninmyotennoryo, Mikoshifun, Shosenkonofun, Nyogosadakohaka, Shigehiranodzuka, Sujakutenogoryo, Kurumadzuka, Sakuradzuka, Gofushiminyo, Gokurakujinokuyuseki, Indzuka, Koidzuka, Bifukumonin Noryo, Konoenryo, Fushiminyo, Kanmutennoryo, Nyohokyojizuka, Ominaeshidzuka, Uchizatotsuka, Otsuka, Fakahaka, Saihoimidajirokuyuseki, Jomyojikyuseki, Nanatsudzuka, Kajitsuka, Izumishikibuhaka, Shigehirakubiaraikekeiarachi, Komaderanokuyuseki, Kunikyoto, Tsudzukinomyato, Komyosenjikyuseki, Tachibananomoreokuyuseki, Wakashitsutsumisadainjikyuseki
Natural landscape	Ujiqawasuigen, Kaseyama, Kisentake, Yuoshiba, Kannabisan, Fugenjikei, Tennozsan, Kasatoriyama, Matsukagechi, Okuyama, Kamogawa, Maruyama, Asahiya, Kurikoyama, Ujijama, Sumizomesakura, Umetani, Fushiminoshiryama, Matsubarayama, Kinkawa, Yodo, Minoyama, Hachimanyama, Kowansan, Mimurodoyama, Kowatagawa, Kosasamine, Tamadamori, Kindanyama, Okurachi, Nunotozan, Bentenyama, Okadayama, Hokkejin, Kamogawa, Kidzugawa, Zookayama, Tamagawa
Number of scenic sites	367
Number of drawings	92

Akizato and illustrated by Shunchosai Takehara, 1787), Miyako-rinsen-meisho-zue (written by Rito Akizato and illustrated by Soen Sakuma, Baikei Nishimura, and Bunmei Oku; 1799), and Karaku-meisho-zue (written by Akihiro Kimura and illustrated by Kanenari Akatsuki, Shunsui Yomo, and Tokyo Umegawa; 1864). We found 367 sites that had legible geographical locations (Table-1), and found 92 drawings in the database that showed a relation with the descriptions of scenic sites. We divided the 367 scenic sites into 7 categories: 1) temple (n=114); 2) shrine (n=51); 3) villa (n=11); 4) tomb and historical site (n=41); 5) bridge and other landscape furniture (n=25); 6) settlement and place name (n=87); 7) natural landscape (n=38). We extracted 367 pieces of topographic maps, on which the position of each scenic site was already determined and marked in Meisho-zue database<sup>10</sup>. After calibrating the main road as the registration point, the location of all

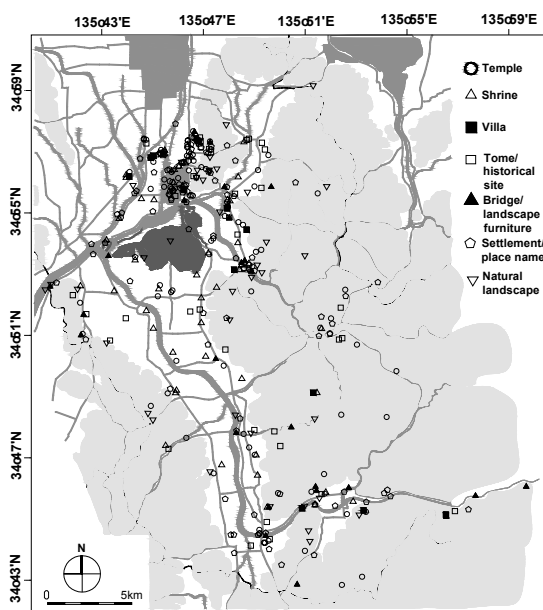


Fig-2 Spatial distribution of scenic sites surrounding the Oguraike Pond

367 scenic sites and a map showing Oguraike Pond in the Edo period<sup>9</sup> were marked on the 2002 topographic map. This map was then imported into software AutoCAD and a digital map was generated (Fig.-2).

(3) Analysis of waterside elements and landscape spatial composition in the former Oguraike Pond and surrounding landscape

Water is and was the crucial element in the Oguraike area. We thus first focused on the waterside elements of the study site. 18 drawings that described the waterside landscape were extracted in order to explore the Edo-period waterside characteristics of the Oguraike Pond and other surrounding wetland landscape. We analyzed astronomic elements, natural elements on the water, artificial elements on the water, embankment elements, artificial elements by the water, vegetation elements by the water and human activities in both the foreground and at mid-shot of the drawings (Fig.-3).

Next, 40 typical drawings of scenic sites referring to the Oguraike Pond and its surrounding wetland landscape were extracted. These 40 drawings include both the waterside scenic sites and the other common scenic spots. Then cross section maps of the landscape from different viewpoints were drawn in order to characterize land use and landscape spatial composition of the Oguraike Pond and the surrounding wetland landscape (Fig.-3).

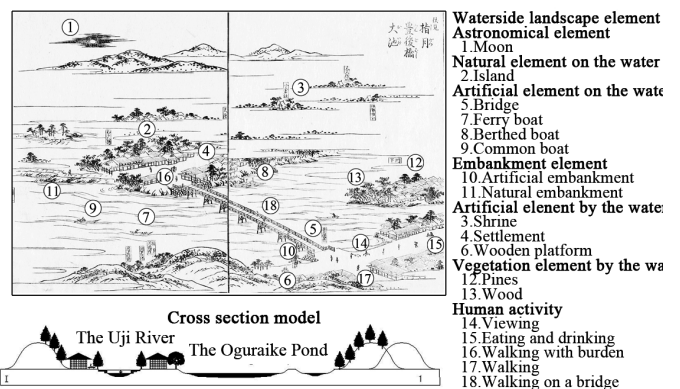


Fig-3 Analysis of waterside landscape elements, line of sight, and spatial landscape composition of the Oguraike area

(4) Analysis of distribution of scenic sites in the vicinity of the former Oguraike Pond

Since the location of natural landscape was not dependent on the influence of the pond, we only selected 329 scenic sites and did not include natural landscapes as research subjects. The digital distribution map of scenic sites (Fig.-2) was inputted into GIS software, and the spatial distribution of the scenic sites and the Oguraike Pond was clarified. The multiple ring buffer tool was used to calculate spatial distances. Then the regression analysis was carried out to investigate the correlation of the number of scenic sites and the distance from the Oguraike Pond in SPSS.

3. Waterscape elements of Oguraike Pond and the surrounding wetland landscape in the Edo period

In this paper, the water bodies of the Oguraike area include the Oguraike Pond, the Uji, Kowata, Katsura, Kizu, and Yodo Rivers, and also the Shira River and fish pools (Table -2). We carried out a detailed analysis of the different categories of waterside landscape elements with

regard to different water-related sites in the Edo period:

(1) Astronomic element and natural element on the water

People could view the moon scenery on the Oguraike Pond and on the Uji River. The moon scenery was also recognized as a famous cultural landscape in Edo-period poems referring to Oguraike Pond<sup>(1)</sup>.

(2) Artificial element on the water

Boats were the most common artificial landscape elements corresponding to human activity on the water. They were depicted in drawings referring to the Yodo and Uji Rivers as ferry boats, common boats, boats for recreation, and berthed boats. Additionally, boats from which items were sold were depicted on the Yodo River. Fishing boats were only identified in a drawing that showed fish pools by the north bank of the Uji River. Ferry boats were also found in the Kizu River. The results show that the Yodo, Uji, and Kizu Rivers were major traffic arteries in the Edo period, and that people could eat and drink on a boat for recreation on the Yodo or Uji River. A boat on the Uji River carrying brushwood figured in depictions. This scenic element also appeared in

Table—2. Waterscape elements of the Oguraike Pond and its surrounding wetland landscape portrayed by meisho-zue

Names of drawings	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	Freq		
Names of pond and rivers	Ogura ike	Yo do	Yo do	Yo do	Yo do	Uji	Uji	Uji	Uji	Uji	Uji	Uji	Uji	Uji	Uji	Uji	Fish pool	Ki zu	Kats ura	Kow ata	uen cy
(1) Moon	○						○									○					4
Shoal																					1
Island	○		○																		3
(2) Wooden bridge			○			○	○		○	○	○							○	○		8
Water tanker					○	○															2
Turtle stone								○													1
Stone pagoda									○												1
Common boat		○	○		○	○	○								○	○		○			8
Fishing boat																	○				1
Boats for recreation													○								3
Boats from which items were sold					○																1
Ferry boat			○			○	○														3
Berthed boat			○			○	○														4
Boat for transporting brushwood											○										1
(3) Wooden pile															○	○					1
Earth bank	○	○	○				○							○	○	○		○			8
Masonry bank					○	○												○			5
Masonry bank (with stairs)																					2
Earth masonry bank (with stairs)			○																		1
Gravel bank			○		○		○	○	○	○								○	○	○	11
Gravel bank (with stairs)			○																		1
(4) Settlement	○							○	○	○								○			7
Restaurant																					1
Temple/shrine	○		○												○						6
Castle			○		○																2
Dock															○						2
Torii			○														○				3
Tombstone								○		○								○			3
Stone lantern																					1
Wooden platform																			○		3
(5) Fish pool																					1
Paddy field		○																○			3
Grass													○	○	○	○			○		4
Reeds		○													○	○		○	○		8
Willow									○						○	○			○		1
Pine																			○		5
Broadleaved tree																			○		3
Pines	○						○			○											3
Bamboos		○								○											2
Wood	○		○		○		○	○	○	○					○	○		○			12
Avenue of pines		○	○												○	○					7
(6) Hauling a boat			○																		1
Viewing						○	○														3
Eating and drinking															○						2
Showing respect																					2
Washing a pot																	○				1
Fishing from the shore																	○		○		3
Carrying sedan								○													1
Walking		○	○		○	○	○	○	○	○					○	○	○	○	○		14
Walking with burden		○	○		○	○	○	○	○	○					○	○	○	○			9
Riding a horse								○													1
Farming		○																			1
Catching firefly																					1
Riding a horse on a bridge			○															○			2
Walking with burden on a bridge								○										○			2
Hauling oxcart on a bridge																				○	1
Walking on a bridge			○			○	○											○			4

Note: There were two types of water bodies depicted on three drawings among all eighteen drawings (Oguraike Pond and Uji River on A, Yodo and Katsura Rivers on C, and Yodo and Kizu Rivers on E). A: Oguraike; B: Hachimanjinguji; C: Yodohimejinja; D: Yodo; E: Yodobashi; F: Fushimisenba; G: Ujigawa; H: Kouseiji; I: Ujibashi 1; J: Ujibashi 2; K: Ujigawahodanugari; L: Yodoin; M: Ujigawaajiro; N: Hozoin; O: Bezaiten; P: Shidzukiyama; Q: Tenmutennosha; R: Kowatagawa. (1): Astronomic element and natural element on the water; (2): Artificial element on the water; (3): Embankment; (4): Artificial element by the water; (5): Vegetation element and land cover by the water; (6): Human activity.

poems of the Edo period<sup>12)</sup>. Further shown were water tankers in the Yodo River and bridges in the Yodo, Uji, Kizu, and Kowata Rivers.

### (3) Embankment element

Artificial embankments and natural embankments were both identified in the Yodo, Uji, and Kizu Rivers. Only natural embankments were depicted in drawings referring to Oguraike Pond, Katsura River, and Kowata River.

### (4) Artificial element by the water

The most frequently depicted building elements by the waterside of the Oguraike Pond were private houses and shrines/temples. Besides these, there was the element of the castle by the waterside of the Yodo River. At the shore of the Uji River, private houses, shrines/temples, and the elements restaurant and dock were identified, while torii, tombstones, stone pagoda and wooden platform were also depicted. There was also depiction of the elements wooden platform for washing clothes and of standing by the Kowata River.

### (5) Land cover and vegetation element by the water

In the analysis of waterside land cover or plant elements, pines and woods were found by the Oguraike Pond. The elements paddy field, reeds, bamboos, avenue of pines, and woods could be identified on the shore of the Yodo River. By the Uji River, there were the elements fish pools, paddy field, grass, reeds, pines, bamboos, avenue of pines, and woods. Reeds and woods were growing on the shores of the Kizu River. On the shore of the Kowata River, the elements grass, reeds, willow, and pine could be identified in the related drawings. The common characteristic of the waterside land cover was reeds and pines by the waterside, and rows of pine trees along banks of the Yodo and Uji Rivers.

### (6) Human activities

With regard to elements of human activity on the water or at the waterside except for the activities on the boat, there was no depiction related to the Oguraike Pond and Katsura River. Human activities of walking, transportation, and riding a horse on the bridge or on the shore were portrayed most commonly and frequently in the drawings of the Yodo, Uji, Kizu, and Kowata Rivers. Other special activities included hauling a boat ashore and working in the paddy field by the waterside of the Yodo River. At the shore of the Uji River, human activities included sightseeing, eating and drinking, and one instance each of paying respect at a temple/ shrine, carrying a sedan chair, fishing from the shore, and catching fireflies. The wickerwork fish trap and the scenery of fireflies were famous scenery at the Uji River in the Edo period and referred to the literary works of that period<sup>6, 12)</sup>. However, autumn maple leaf viewing, also an activity described in such poems<sup>12)</sup>, did not figure in any of the drawings. The depiction of people who carry a sedan chair on the shore of the Uji River suggests that the area was also a recreation place for the nobility. As mentioned above, there were wooden platforms on the shore of the Uji River, where people could sit while eating, drinking, and appreciating the scenery. With regard to the Kowata River, the activities of washing pots, fishing ashore, and oxcart transportation were depicted.

Overall, the pivotal landscape elements that constituted the waterside scenery of the Oguraike area in the Edo period were explored based on the analysis of the frequency of depiction of various waterside elements. In the Edo period, the famous waterside landscape characteristics included viewing cherry blossoms, viewing plum blossoms, viewing wisteria blossoms, viewing lotus, and admiring the moon<sup>3)</sup>. However, in this research we found that the most crucial waterside elements were the boats, and human activity on boats on the water or at the shore. Among all 18 drawings, there were 12 drawings which described boats and human activities on boats. They were common boats (8 times), berthed boats (4

times), ferry boats (3 times), boats for recreation (3 times), a fishing boat (once), a boat from which items were sold (once), and a boat for transporting brushwood (once). Other elements that appeared more than four times were selected in Table-2. The most common elements that constituted the scenic sites were as follows: The astronomical element of moon on the water (described 4 times); the wooden bridge (8 times); embankments made of natural soil and rocks, among these earth banks (8 times) and gravel banks (11 times); the private house (7 times) and temple/shrine (6 times) located on the shore of the bank; single pine (5 times), and pine shelter (7 times) along the river constituting a waterside greenery space; woods (12 times), reeds (8 times), and grass (4 times); people walking (14 times) and walking with a burden (9 times).

## 4. Spatial structure of the landscape of former Oguraike Pond and surroundings based on line-of-sight analysis

Through landscape spatial composition we determined both the composition of Edo-period scenic sites, and also the land use of the study site. There were descriptions and name labels of the main landscape elements (temples, shrines, rivers, mountains, bridges and so on) on each drawing, and locations of these main elements were already determined in the Meisho-zue database<sup>10)</sup>. Consequently we could analyze and determine the real geographical location of the foreground to background landscape in the drawings (Fig.-4). Then we created cross section maps of these drawings in the direction of the line of sights, which reflected the real landscape structure according to real geographical location. Through analysis, we found that the landscape structure can be divided into nine types. With waters, islands, and temples/shrines/settlements as the main scenery, one structure type was a mountain as the foreground and background (Fig.-5-a), and one was a mountain as the foreground (Fig.-5-d). A special structure was a location beyond the river with a fish pool situated on the foot of a mountain (Fig.-5-c). Taking a water body as the foreground and farmland and temples/shrines/settlements as the mid-shot, one site was situated on a plain (Fig.-5-b), while another was backed by mountains (Fig.-5-f). The main characteristic of the structure of the landscape was the fact that in the case of temples/shrines/settlements situated in farmland, one type was situated on a plain (Fig.-5-e), while the other was backed by mountains (Fig.-5-i). The temples/ shrines/ settlements were the main landscape element. One site was situated before mountains (Fig.-5-g), and one was on a plain (Fig.-5-h). The structure with the real geographical location was explained in detail.

### (1) Mountain-settlement-river-island-pond-temple/shrine-mountain

The foreground landscape in the sight direction from Shizuki mountain to Oguraike Pond (Fig.- 4, sight 1) contained the Uji River, Uji Bridge, and Mugai Island, with settlements surrounded by vegetation. In the

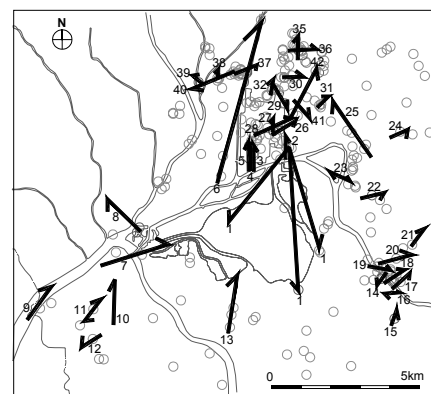


Fig.- 4 Line of sight surrounding Oguraike Pond

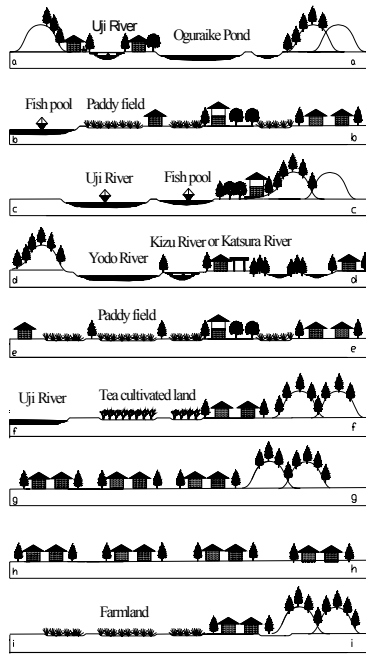


Fig.-5 Cross section model from different line-of-sight

mid-range was the expanse of Ogoraike Pond (water and islands), with mountains in the background (Fig.-5-a). People were clearly distinguishable, sitting on the shore or on a wooden platform. Because the figures were depicted eating and drinking while sightseeing at the shore of the pond, it was concluded that the location with this particular sight-line was a popular viewing site.

(2) Fish pool-paddy field-temple/shrine

Looking from the pond towards Takeda (to the north of Ogoraike Pond) (Fig.- 4, sight 3-6), the view to the background was unobscured and the foreground contained square fish pools in which fishermen were catching fish with nets, or it contained paddy fields, or temple and shrine, or dock. In the mid-range were vast expanses of paddy fields, temples, and shrines (Fig.-5-b).

(3) River-fish pool/paddy field-temple/shrine-mountain

For a line-of-sight set from the pond to Shizuki Mountain (Fig.- 4, sight 2) , the Uji River was in the foreground with the mountain in the background. There was also a row of square fish pools and paddy fields surrounded by trees on the north bank of the Uji River, and a temple in the foothills of Shizuki Mountain (Fig.-5-c). We could thus infer that the landscape pattern contained rows of fish pools, paddy fields, temple and shrine, dock, temple and shrine, fish pools, and paddy fields seen from west to the east on the north bank of the Uji River. The numerous square fish pools on the north bank of the Uji River indicated the existence of aquaculture in the Ogoraike floodplain.

(4) Mountain-river-temple/shrine-river-temple/shrine

Looking towards the pond from the confluence of the Kizu and Yodo Rivers (to the west of Ogoraike Pond) (Fig.- 4, sight 7-9), the Rivers and Bridge were in the foreground, and the mid-range contained waters and islands (Fig.-5-d) .

(5) Paddy field-temple/shrine-paddy field-settlement

To the south of Ogoraike Pond (Fig.-4: sight 13), paddy fields surrounded the pond with temples, shrines, and settlements situated in between them (Fig.-5-e).

(6) River-farmland-temple/shrine/settlement-mountain

To the southeast (Fig.- 4, sight 14 -21), the view was blocked by

mountains just after crossing the Uji River, which had pine shelterbelts along its bank. Lands cultivated with tea and settlements were also located across the river (Fig.- 5-f).

(7) Temple/shrine-settlement-mountain

The line-of-sight from the lake to Kowatasato landscape space (Fig.- 4, sight 22-25) contained shrines, temples and settlements, and was backed by mountains (Fig.-5-g).

(8) Temple/shrine-settlement

The landscape furthest away from Ogoraike Pond contained two basic spatial patterns: one was comprised of an area of temples, shrines, and settlements (Fig.- 4, sight 27, 31, 32, 35, 38) (Fig.- 5-h).

(9) Farmland-temple/shrine/settlement-mountain

The other included paddy fields, melon cultivated lands, or plums as foreground landscape; with temples, shrines, and settlements as mid-shot; and mountains as the background (Fig.- 4, sight 10-12, 26, 28-30, 36-37, 39-40, 41-42) (Fig.- 5-i) .

5. Spatial distribution of scenic sites surrounding the former Ogoraike Pond

In the Edo period, most of the temples, shrines, and settlements in the Suzaku direction of Kyoto city were located within 4 km of the Ogoraike Pond (Fig.- 6). The large amount of temples and shrines surrounding the pond added to the cultural value of the Ogoraike Pond. The existence of the Fushimi dock and of a large amount of settlements surrounding the pond indicated that the Ogoraike floodplain was a vital traffic node<sup>6)</sup>. The existence of the royal palace of Fushimi Kokyo, and of the villas Uji betsuigo, Kanaoka taku, and Gokasho in the shore region of Ogoraike Pond indicate the beauty of the pond's natural landscape. In order to explore the relationship of the distribution of scenic sites and the location of the Ogoraike Pond, linear regression analysis was carried out. According to Fig.-7, there was a poor linear negative correlation between the quantity of scenic sites and the distance from the Ogoraike Pond. Regarding the scenic sites studied in this research as artificial landscape, we inferred that the negative trend was considered to be due to a decrease of exploitation and a decline of people leaving urban areas for the suburbs.

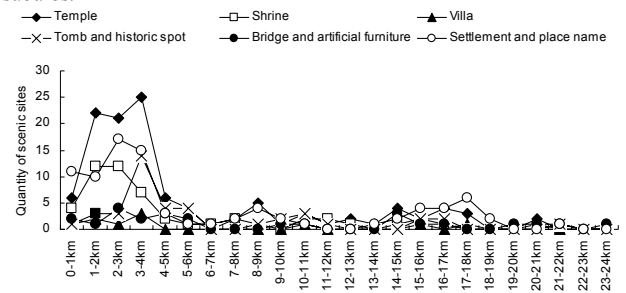


Fig.-6 Quantity of Scenic sites at different distances from Ogoraike Pond

6. Conclusion

The role of the Ogoraike wetland in the suburb ecological environment is gaining in significance as attention is focused on forming local characteristic cultural landscape and improving local natural landscape. As in the past, waterfront space continues to connect urban and natural environments to form an integrated whole.

(1) There were 57 kinds of waterside elements recognized in the Ogoraike Pond and surrounding wetland landscape during the Edo period. The Ogoraike area maintained rich waterside culture as a node site for waterborne transportation, commerce, fisheries, and recreation as can be

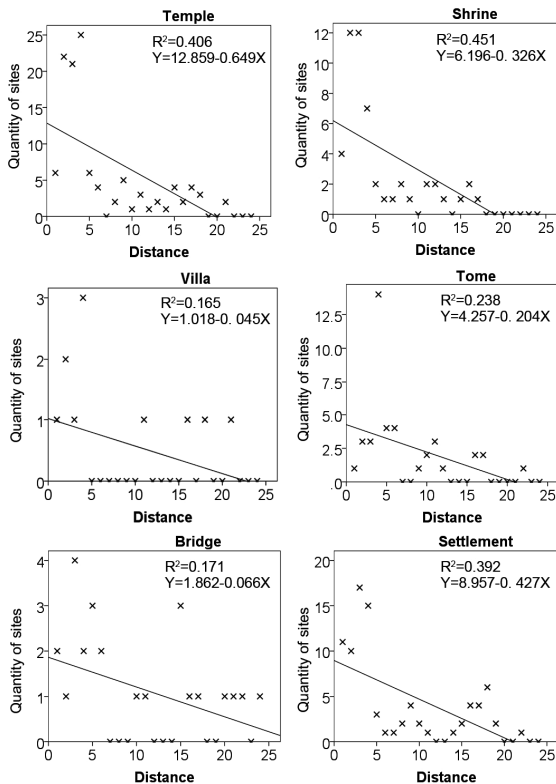


Fig.-7 Relationship of quantity of scenic sites and distance from the Oguraike Pond

concluded from the presence of 7 types of boats. The main elements which constituted and represented the waterside scenic sites surrounding the Oguraike Pond in the Edo period included: 1) the scenery of moon on the water; 2) the scenery of islands, on which settlements are located; 3) the borrowed cultural landscape of the temples and shrines located at the shore of the water; 4) the greenery landscape constituted by the pines and pine shelter along the water, pines and woods surrounding the temple/shrine/settlement, and the reeds growing along the water.

(2) We found 9 main types of landscape spatial pattern models with which to express the typical constitution of scenic sites, and land use surrounding the former Oguraike Pond. Land use comprised mainly pond, rivers, fish pools, settlements, shrines/temples, tea cultivated lands, and paddy fields. The common characteristics of landscape composition of the former Oguraike area in the Edo-period revealed that the water element always co-occurred with mountains as the background landscape. In the mid-range, there was the scenery of temple, shrine, and settlement. The expanse of paddy fields or farmlands reflected the rural landscape of the former Oguraike area, in which the building elements of temples, shrines and settlements were always taken as a kind of embellishment landscape.

(3) Most of the temples, shrines, and settlements in the Suzaku direction of Kyoto were located within 0-4 kilometers of the former Oguraike Pond. The large quantity of scenic sites obviously increased the cultural value of the Oguraike scenery.

The Oguraike area of the Edo period was a typical rural landscape of suburb wetland in the Kyoto city. After examining the Edo-period natural and cultural landscape of the Oguraike Pond and its surrounding wetland landscape, we conclude that being aware of typical landscape elements such as those found in the present research could be the key to finding ways to efficiently restore and conserve the Oguraike wetland landscape for the future.

## Notes and References

- 1) Ministry of Land, Infrastructure and Transport: Ground Design for the Kinki Environmental Infrastructure: Homepage of Ministry of Land, Infrastructure and Transport <[http://www.mlit.go.jp/kisha/kisha06/02/020809\\_.html](http://www.mlit.go.jp/kisha/kisha06/02/020809_.html)>, 2006. 8. 9 update, 2011. 11. 3 referenced
- 2) Iwasaki, Y., Kaga, H., Shimomura, Y., and Masuda, N. (2007): A study on greenery landscapes of designed riverside scenic spots in the Edo period based on "Yodogawa Ryogan Ichiran": Journal of the Japanese Institute of Landscape Architecture 70 (5), 611-616
- 3) Sudou, K. and Watabe, K. (2007): A study of composition of waterside space in Edo through the illustrations drawn by Settan Hasegawa: Journal of the Japanese Institute of Landscape Architecture 70 (5), 373-376
- 4) Sudou, K. and Watabe, K. (2006): A study of composition of riverside space in "One Hundred Edo Noted Place Pictures" painted by Hiroshige: Journal of The Japanese Institute of Landscape Architecture 69 (5), 725-730
- 5) Okada, T., Yokouchi, N., Sakurai, S., Samizo, H., and Honda, K. (1997): Study on Japanese shinsui actions/ spaces in Meisho-Zue and waterside development: Summaries of Technical Papers of Annual Meeting Architectural Institute of Japan. A-2, Fire Safety, Off-shore Engineering and Architecture, Information Systems Technology, 281-282
- 6) Oguraike Reclaimed Area Committee (1962): Oguraike Reclaimed Area: Oguraike Reclaimed Area Committee Press, 737 pp
- 7) "The name Suzaku (red Chinese phoenix) for Oguraike Pond stemmed from the Fengshui site model based on which Kyoto City was built. Suzaku means lake or pond located in front of a Fengshui site. Kyoto was built backed by Funaoka mountain (Genbu), enclosed by Kamo river (Seiryu) and Sanin road (Byako), and welcomed by Oguraike pond (Suzaku)" from Morimoto, Y. (2011): Urban biodiversity: Do you Kyoto: BIO City 47, 62-71
- 8) "A harmonious Fengshui site must include hill (Seiryu: blue dragon) crooking to the left, hill (Byako: white tiger) squatting to the right, lake or pond (Suzaku: red Chinese phoenix) flying at the front, and mountain (Genbu: black tortoise) bending at the back in order to fulfill the requirement that the good site should be backed and enclosed by mountains, and welcomed by a lake or pond." from Yu, K. (2005): Landscape: Culture, Ecology, and Perception: Science Press, 416pp
- 9) Suzaku direction of Kyoto means the suburb area to the south of the Heian city (former Kyoto city). The scenic sites in the Meisho zue were classified based on Fengshui theory, and there are six volumes corresponding to six direction for Kyoto: upper Heian city, lower Heian city, Seiryu direction (suburb area to the East of Heian city), Byako direction (suburb area to the West of Heian city), Suzaku direction (suburb area to the South of Heian city), and Genbu direction (suburb area to the North of Heian city).
- 10) International Research Center for Japanese Studies: Meisho-zue for Kyoto City: Homepage of International Research Center for Japanese Studies <<http://www.nichibun.ac.jp/graphicversion/dbase/meisyozeu.html>>, 2006. 4 update, 2010. 11 referenced
- 11) Kang, N., Imanishi, J., Fukamachi, K., and Morimoto, Y. (2012): A study of spatial form and landscape characteristics in the Oguraike wetland during the Edo period based on Japanese poetry: Environmental Information Science 40 (5), 101-110
- 12) Inoue, K (2011): The landscape in reminiscence, about a painting by Kakizaki Hakyō "Boating on the lake Ogura under the full moon": Bulletin of Miyagi Gakuin Women's University 112, 1-22