Proceedings of 2017 International Conference of Asian-Pacific Planning Societies

A Study on the Methodology of Integrating Archaeological Heritages into Planning

- Through a Case Study in the Greater Lumbini, Nepal -

Tomoko Mori* and Yukio Nishimura*

Abstract:

Planning in a rich archaeological region requires careful consideration for integrating not only visible heritages on the ground but also potential heritages under the ground into planning. Lumbini, the birthplace of Lord Buddha, is the World Cultural Heritage in Nepal. Tilaurakot, the world cultural tentative site, the archaeological remains of ancient Shakya Kingdom, Ramagrama, the world cultural tentative site, the only undisturbed original stupa of his relics, and other potential archaeological sites, mostly unknown, are in so-called "the greater Lumbini", where Kapilbastu, Rupandehi and Nawalpalasi Districts are. The UNESCO project funded by the Government of Japan, "Strengthening Conservation and Management of Lumbini", clarified preservation and management of the World Heritage property of Lumbini can only be successful if the preservation and management challenges of the cultural landscape and sites that surround the property are addressed at the same time. However, there is a paucity of survey on archaeological inventories, how many sites in the Greater Lumbini. The purpose of this study is to demonstrate methodological considerations in planning how to integrate archaeological heritages into planning through the case study in the part of Greater Lumbini, Kapilbastu and Rupandehi districts, as we have done in the second phase of the UNESCO project from 2014 to 2017.

Keywords*:*

Archaeological Heritages, Regional Planning, Methodology, Lumbini, UNESCO

* The University of Tokyo
E-Mail: tm@ud.t.u-tokyo.ac.jp

1. Introduction

Lumbini, the birthplace of Lord Buddha, has been on the world cultural heritage list in Nepal since 1997. Tilaurakot on the world cultural tentative list of Nepal as the archaeological remains of ancient Shakya Kingdom, Ramagrama on the world cultural tentative list of Nepal as the only undisturbed original stupa of his relics, and other archaeological sites that are mostly unknown, are in so-called "the greater Lumbini", where Kapilbastu, Rupandehi and Nawalpalasi Districts are. The UNESCO project of phase Ⅰ (2010-2013) funded by the Government of Japan, "Strengthening Conservation and Management of Lumbini", clarified preservation and management of the world heritage property of Lumbini can only be successful if the preservation and management challenges of the cultural landscape and sites that surround the property are addressed at the same time. However, as there is a paucity of survey on archaeological inventories, how many sites in the Greater Lumbini are not clarified.

It is essential for planners to collect basic data and maps in order to conserve cultural heritage sites such as a rich archaeological region. Moreover, topographical map tends to be too old or inadequate to use today. We, as a planning team of the project, have to start from collecting information by on-site survey in order to integrate archaeological heritages into planning in the Greater Lumbini. This paper, developing our previous paper[1)], demonstrates methodological considerations in planning how to integrate archaeological heritages into planning through the case study in the part of Greater Lumbini, Kapilbastu and Rupandehi districts in Tarai region, as we have done in the second phase of the UNESCO project from 2014 to 2017.

2. Methodology

We conducted our survey on integrating heritage sites within Kapilbastu and Rupandehi districts into planning by the following three orders as Fig.1 shows:

Layer 1: Mapping the sites
Layer 2: Conservation planning
Layer 3: Development planning

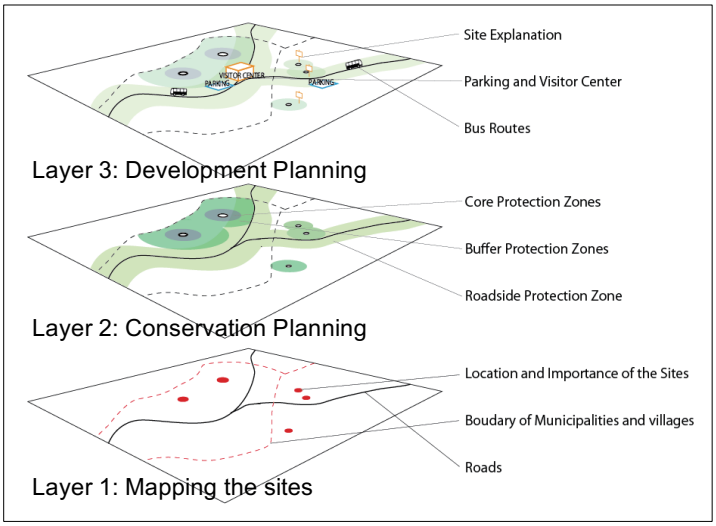

Fig.1 The methodology for the integrated planning

The layer 1 is conducted as archaeological inventory survey of literature reviews and on-site survey with local archaeologists and surveyors using GPS (Global Positioning System). The output from the survey develops on GIS (Global Positioning System) with the up-date topographical data from the high-resolution images donated by Japan Aerospace Exploration Agency (JAXA).

The layer 2 is conservation planning with a property and its buffer zone, where building control reaches. The layer 3 is development planning, including tourism development such as parking and visitor/vehicle routes based on archaeological mapping and conservation planning (Layer 1 and 2). The following three chapters state the method by each layer so that this paper demonstrates methodological considerations in planning how to integrate archaeological heritages into planning through the case study.

3. Layer 1: Mapping the sites

A location of archaeological sites is essential information for planning. Also, a map with the latest information should be its base map. The latest one, however, was published by Department of Survey in 1993 with the scale of 1:25,000. Therefore, principally we had to start from up-dating map. ALOS-1 data, Advanced Land Observing Satellite data from January 2006 to April 2011, contributing by Japan Aerospace Exploration Agency, we decided to work on GIS based on the ALOS-1 image. Regarding a location of archaeological sites, we had to gather information and survey on site. Following three steps are considered and each step is demonstrated in the following sections: STEP 1 (Preparing the List of Research Sites), STEP 2 (Recording the Sites), and STEP 3 (Mapping them and Creating Database).

3.1 Preparing the List of Research Sites (STEP 1)

Firstly, we looked at the literature reviews, which demonstrated explorations in the Greater Lumbini region both by international and national archaeologists (Table 1). The latest exploration was consisted with the largest numbers of sites, 116 sites, in 1997 by the Italian team with local authorities (Verardi, 2007). The location of 116 sites, however, was not precisely plotted on a map. Basically, we list all sites from the literature reviews and information from Department of Archaeology (hereinafter, DoA) and Lumbini Development Trust (hereinafter, LDT) as the basic information.

Table 1. The Chronological Exploration in the Greater Lumbini

Year	International and National Archaeologists (Nationality)
1896	Anton Fuhrer (German)[2)]
1899	Purna Chandra Mukherji (Indian)[3)]
1962	Debala Mitra (Indian)[4)]
1972	Baku Krishna Rijal (Nepalese)[5)]
1977	Tara Nanda Mishra (Nepalese)[6)]
1997	Giovanni Verardi (Italian)[7)]

3.2 Recording the Sites (STEP 2)

With the local archaeologists from DoA and LDT, the surveyors from a local college, and the local guide, we visited all sites and added the sites, which the local archaeologists identified as the archaeological sites, on the list from Step1 (20 January to 10 February 2015 for Kapilbastu, 5 to 18 April 2016 and 20 February to 3 March 2017 for Rupandehi). We had to survey by village to village in Rupandehi since the archaeological sites had not yet identified

enough on the list from Step 1. We recorded visible demarcation of each site as well as its potential area by GPS. Also, we filled the form, which requires the basic information with the description of current condition, and took photos on each site.

Table 2. The site list in Kapilbastu

	No.	Surveyed month/da	Site Name	Custodianship	Ownership	Previous survey (before Verardi)	
Giovanni Verardi's	1	2/5	Jungha	will DoA	Private		
	2	2/5	Koptaya				
	3	2/5	Tenua				
	4	2/5	Koptaiya	will DoA	Mix		
	5	1/22	Amauli	DoA	Private		
	6	2/4	Siuti				
	7	1/22	Kotiya				
	8	1/22	Kopawa N				
	9	1/22	Bikuli	DoA	Government	Mukherji 1899	Mitra 1972
	10	2/4	Gharabudhiya				
	11	2/4	Bhadasadawa	will DoA	Mix		
	12	1/21	Jagadishpur				
	13	1/21	Sagrahawa	LDT/DoA	Government	Mukherji 1899	Mitra 1972
	14	2/4	Chetiya				
	15	1/21	Banadihuli				
	16	1/22	Shrinagar				Mitra 1972
	17	1/21	Katuwa				
	18	1/21	Jahadi				
	19	2/4	Karailiya				
	20	2/4	Galahi				
	21	2/4	Pipara				
	22	1/21	Niglihawa	LDT/DoA	Government	Mukherji 1899	Mitra 1972
	23	1/22	Shiwapura				
	24	1/21	Raksa Baba	DoA	Mix		
	25	1/23	Rudhaula				
	26	1/20	Thumuhawa				
	27	1/21	Araurakot	LDT/DoA	Government	Mukherji 1899	Mitra 1972
	28	1/21	Barsauli				
	29	1/21	Rehara				
	30	2/3	Anarath	will DoA	Private		
	31	2/8	Tilaurakot	LDT/DoA	Government	Mukherji 1899	Mitra 1972
	32	1/20	Belaspur				
	33	1/20	Semari				
	34	2/3	Bagadi				
	35	1/21	Chaudahawa				
	36	2/3	Sarkhuiya				
	37	1/20	Sadawa_village				
	38	1/22	Laksminagar				
	39	1/26	Patakahawa				Mitra 1972
	40	1/26	Malpara				
	41	2/3	Bhusudi				
	42	2/1	Mahita				
	43	1/26	Siktahniya				
	44	2/1	Kankatawa				
	45	1/26	Piparhawa E				
	46	2/1	Gauriganj				
	47	2/3	Nawadihawa N				
	48	1/26	Kodahawa				
	49	2/1	Imiliya	will DoA	Mix		
	50	2/1	Bagawa				
	51	2/3	Nawadihawa S				
	52	1/30	Rajwapur	will DoA	Mix		
	53	1/23	Taulihawa	DoA	Government		
	54	2/3	Mehniya				
	55	1/26	Belbhariya				
	56	2/1	Madhunagar	could not find			
	57	1/26	Lausa				
	58	1/30	Dharampaniya	DoA	Mix		F
	59	1/30	Dumara				
	60	2/1	Gaura	will DoA	Mix		
	61	1/29	Dohani S	DoA	Mix		Mitra 1972
	62	1/27	Pipari	will DoA	Private		Mitra 1972
	63	2/1	Bimiha				
	64	1/27	Gotihawa	LDT/DoA	Government	Mukherji 1899	Mitra 1972
	65	1/23	Kudan	LDT/DoA	Government	Mukherji 1899	Mitra 1972
	66	1/29	Sheharaiya				
	67	2/3	Bhagawapur				
	68	1/26	Sauraha				
	69	1/29	Lamtiya	will DoA	Private		Mitra 1972
	70	2/3	Kodaradih				
	71	2/3	Sishaniya Thulo	will DoA	Mix	Mukherji 1899	Mitra 1972
	72	1/28	Daldalha	DoA	Mix		Mitra 1972
	73	1/29	Kunwa Gaun				
	74	1/31	Karma	will DoA	Mix		
	75	2015/1/28,2/10	Hardewa	DoA	Mix		Mitra 1972
	76	1/3	Mungehari	will DoA	Mix		
	77	1/3	Kapasi				
	78	1/2	Vadehar				
	79	1/2	Dangari				
	80	1/2	Baskhor W				
	81	2/2	Gulari				
	82	1/2	Shrirampur				
	83	1/3	Bankasiya				
	84	1/3	Abhirawa				
	85	1/3	Baskhor E				
	86	1/2	Babhni	DoA	Mix		Mitra 1972
	87	1/3	Mahadewa	DoA	Mix		
	88	1/2	Amarlonaha				
	89	1/2	Budhapar				
	90	1/2	Sultanwanpur				
	91	1/2	Ramnagar				
	92	1/2	Bedauli S				
	93	1/2	Bahadilawa W				
	94	1/2	Bahadilawa E				
	95	1/3	Bijuwa	DoA	Mix	Mukherji 1899	Mitra 1972
	96	2/2	Murphutawa				
	97	1/2	Sishaniya	LDT/DoA	Government	Mukherji 1899	Mitra 1972
	98	1/2	Parsohiya				
	99	2/2	Ramawapur_Rajuwapur	will DoA	Mix		
	100	1/2	Kopuwa				
	101	1/3	Sisawa				
	102	1/3	Shankarpur				
	103	1/2	Bhaisadiya				
	104	1/2	Somdih				
	105	2/5	Madhanagar				
	106	1/2	Mudila				
	107	1/3	Pipara	will DoA	Mix		
	108	1/3	Chakal Chauda				
	109	2/5	Nandanagar S				
	110	1/2	Kadajhawa				Mitra 1972
	111	1/3	Barkul	will DoA	Private		
	112	2/2	Galbariya				
	113	2/2	Jayanagara				
	114	1/2	Purnihawa				
	115	2/2	Shiwalwa	will DoA	Mix	Mukherji 1899	Mitra 1972
	116	2/2	Dohani		Mix		Mitra 1972
Added on s	117	1/2	Sadawa_canal				
	118	1/2	Gobari				
	119	2/1	Bargadawa				
DoA List (except above 'DoA' and	120	2/6	Dharampaniya shiwalaya				
	121	2/6	Athkoniya	DoA	Private		
	122	2/6	Baluhawa	DoA	Mix		
	123	2/6	Ganshpur Stupa	will DoA	Mix		
	124	2/6	Beloha	will DoA	Private		
	125	2/7	Chetaradehi	DoA	Mix	Mukherji 1899	Mitra 1972
	126	2/7	Darewa	DoA	Private		
	127	2/7	Tauleshwornath	will DoA	Mix	Mukherji 1899	
	128	2/7	Thulo Bargadawa	will DoA	Private		
	129	2/7	Siddhipur				
	130	2/7	Ramapur Stupa	will DoA	Mix		
	131	2/7	Dhamanihawa Stupa	DoA	Mix		
	132	2/7	Kanthak Stupa	DoA	Mix		
	133	2/7	Reharawa Stupa	DoA	Mix		
	134	2/7	Kopawa	will DoA	Mix		
	135	2/1	Bardahawa	DoA	Mix		
added	136	2/1	Hastigrata		Mix		

Photo 1. Demarcation of the Visible and Potential boundary

Table 3. The site list in Rupandehi

	No.	Surveyed month/day	Site Name	Custodianship	Ownership	Previous Survey (first)
Rupandehi District	1	4/5	Monoura		Government	
	2	4/5	Monouri Aagara		Government	P.C.Mukherji, 1899
	3	4/5	Kalidoka Samae Mai		Government	Debala Mitra, 1962
	4	4/5	Paisia		Government	Debala Mitra, 1962
	5	4/5	Amahawa	Private	Private	Debala Mitra, 1962
	6	4/5	Madabani Samai Mai		Government	
	7	4/6	Madubani	Private	Private	
	8	4/6	Prakateshwar		Government	(known)
	9	4/6	Motipur	Private	Private	Krishna Bahadur K.C., 2015
	10	4/6	Punnikot Deurawa		Government	
	11	4/6	Jhungawakot		Government	
	12	4/6	Amawakot		Government	
	13	4/6	Siddha Natha		Government	
	14	4/6	Sudesar	Private	Private	
	15	4/7	Marchawari Mai		Government	(known)
	16	4/7	Rudlapur	Private	Private	
	17	4/7	Gohdauri Kotawa		Government	
	18	4/8	Kalida	Private	Private	Debala Mitra, 1962
	19	4/8	Malang baba Ki than		Government	
	20	4/8	Nipaniya	Private	Private	Debala Mitra, 1962
	21	4/8	Piprahawa	Private	Private	Debala Mitra, 1962
	22	4/9	Chotkipaderiya	Private	Private	P.C.Mukherji, 1899
	23	4/9	Khungai Samaya Mai Dada	Private	Private	Debala Mitra, 1962
	24	4/9	Sano Mouhari	Private	Private	P.C.Mukherji, 1899
	25	4/9	Mouhari Kot		Government	
	26	4/9	Khambe Dada	Private	Private	
	27	4/9	Jitawapur	Private	Private	
	28	4/10	Madhubani Dada	Private	Private	
	29	4/10	Amargang Jamuhi	Private	Private	
	30	4/10	Tenuhawa	Private	Private	
	31	4/10	Masina Gaddidiha	Private	Private	
	32	4/11	Kankad Dada Kukurbhukuwa	Private	Private	
	33	4/11	Badaki Dhupahi Shibalaya		Government	
	34	4/12	Kacharihawa Dada	Private	Private	
	35	4/12	Ekala	Private	Private	
	36	4/12	Manthadhari Baba Than		Government	(known)
	37	4/12	Chanchai Mai		Government	(known)
	38	4/13	Pipara Dada	Private	Private	
	39	4/13	Charwahi Dada	Private	Private	
	40	4/13	Semari Dada	Private	Private	
	41	4/13	Dhakdhahi Laxmi Nagar Dada		Government	Shantaram Bhalchandra DEO, 1968
	42	4/13	Chhipaghar Ganesh Temple		Guthi	Shantaram Bhalchandra DEO, 1968
	43	4/14	Lalitpur Pakadiv Dada	Private	Private	
	44	4/14	Kotohawa	Private	Private	Shantaram Bhalchandra DEO, 1968
	45	4/15	Bhawanipur	DoA, LDT	Government	Baku Krishna Rijal, 1972-1973
	46	4/15	Dewdaha Bairi Mai	DoA, LDT	Government	Baku Krishna Rijal, 1972-1973
	47	4/15	Kanya Mai	DoA, LDT	Government	Baku Krishna Rijal, 1972-1973
	48	4/15	Sankar Nagar Community Forest		Government	
	49	4/15	Chauki Dada	Community	Community	
	50	4/15	Kumarwarti		Government	(known)
	51	4/16	Khayar Dada		Government	Baku Krishna Rijal, 1972-1973
	52	4/16	Dewdaha Pond		Government	(known)
	53	4/16	Bangala Well		Government	(known)
	54	4/16	Phulbari		Government	(known)
	55	4/16	Jitgadhi		Government	(known)
	56	4/16	Sainamaina		Government	Anton Fuhrer, 1896
	57	4/16	Parroha Shiva Temple		Government	(known)
	58	4/17	Naukhaniya Dada	Private	Private	
	59	4/17	Padaura →can't identify			Debala Mitra, 1962
	60	4/17	Sagrahawa	Private	Private	P.C.Mukherji, 1899
	61	4/18	Bhaguwanpur	Private	Private	Anton Fuhrer, 1896
	62	4/18	Samaya Mai Pachabirawa		Government	
	63	2/20	Hasanapur Kotahimai Than		Government	
	64	2/20	Dolai	Private	Private	
	65	2/20	Dhamire Tal Shiva Temple		Government	
	66	2/21	Sisawa Barmain Than		Government	
	67	2/21	Darbaha Mai		Government	
	68	2/21	Narainapur Nareshwar Mahadev Temple		Government	Prof. Gitu Giri
	69	2/23	Baraimai Temple Barewa		Government	
	70	2/23	Harna Dada	Private	Private	
	71	2/23	Kalika Mai		Government	
	72	2/24	Mehathawal Shiva Temple		Government	
	73	2/24	Matiyarawa Dada	Private	Private	
	74	2/24	Mehathawal Kotaimai Than		Government	
	75	2/24	Jagahattha Dada 1	Private	Private	
	76	2/24	Jagahattha Dada 2	Private	Private	
	77	2/24	Laxmipur Kotai		Government	Prof. Gitu Giri
	78	2/24	Laxmipur Ekla Dada	Private	Private	
	79	2/25	Sewar Temple Dogana		Government	
	80	2/26	Bhagadari Dada	Private	Private	
	81	2/26	Ranibari Ancient Well		Government	Prof. Gitu Giri
	82	2/26	Motipur Ancient Well		Government	Prof. Gitu Giri
	83	2/27	Kotaimai Temple Madhuban		Government	
	84	2/27	Baunna Koti (Chiliya forest) Community Forest		Government	
	85	2/27	Khairiya Shiva Temple		Government	
	86	2/28	Basadilwa Shiva Temple		Government	Prof. Gitu Giri
	87	2/28	Basadilwa Dada	Private	Private	
	88	2/28	Kewataliya Ghumayana Dada	Private	Private	
	89	2/28	Basaghari Shakti Pitha		Government	
	90	2/28	Dingar Nagar Ancient Well		Government	Prof. Gitu Giri
	91	3/1	Putali Dada Padsari	Private	Private	
	92	3/1	Thutipipal Nayagau Dada	Private	Private	
	93	3/1	Butawal Naranthan Temple		Government	Prof. Gitu Giri
	94	3/1	Butwal Krishneshwar Mahadev Temple		Government	Prof. Gitu Giri
	95	3/1	Butwal Jalbinayak Temple		Government	Prof. Gitu Giri
	96	3/2	Eaireni Than Dahar Gau		Government	Prof. Gitu Giri
	97	3/2	Narenapur Ancient Well		Government	
	98	3/3	Sekhuwanwa Dada	Private	Private	
	99	3/3	Betwalawa Dada	Private	Private	

As a result, we counted 136 sites in Kapilbastu and 99 sites in Rupandehi(Table2,3). According to the local archaeologist who joined the Verardi's survey in 1997, he found that most of the sites had been damaged or destroyed by cultivation. However, we could still recognize them by several indications. Some pieces of potsherds were noticed on the surface of most sites, which were a little elevated by the remains underneath in the flat landscape of *Tarai* region. Some sites were so prominent like a mound that some visible brickbats on their surface indicate that they have been intentionally shaped. Moreover, two fortified remains were clearly visible.

3.3 Mapping and Database (STEP 3)

The output from the survey (step 2) developed on GIS with up-dated data from the high-resolution images donated by JAXA (Fig. 2,3). Using Microsoft Access software, we also developed the forms into the database. Combing these two, the site catalogues will be published by UNESCO(Fig. 4).

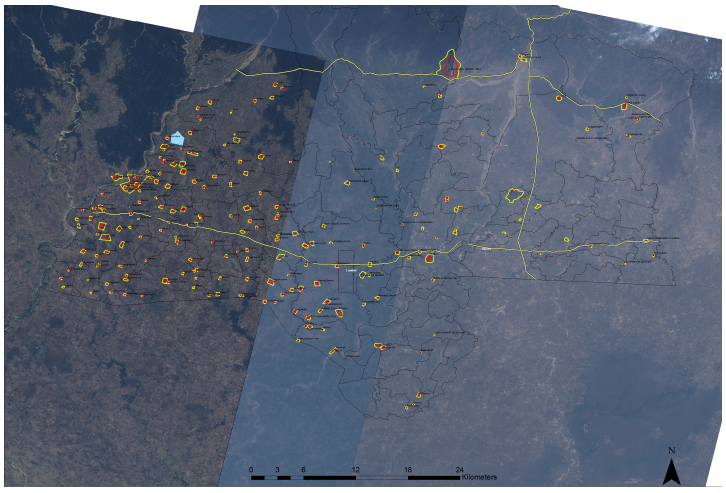

Fig.2 The sites on GIS (136 sites in Kapilbastu, 99 in Rupandehi)

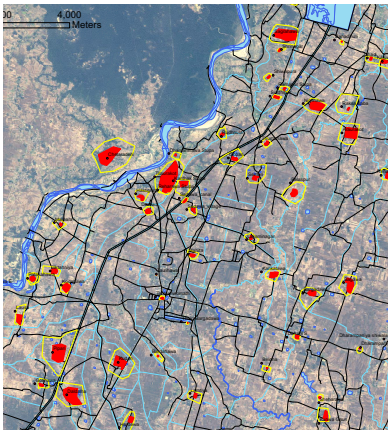

Fig.3 Zoom up map in Tilaurakot Area

Fig. 2 showing the site positions and sizes on GIS as red indicates visible area and yellow indicates its potential area, the sites are found mostly in the southwest region where Tilaurakot, so-called ancient capital city in the Greater Lumbini, was. Whilst we need to wait for future excavations so as to determine them what they have been, it is one of outstanding analysis in order to understand the Greater Lumbini from landscapes. For instance, two fortifications except for Tilaurakot finding with some distances, we can imagine that the region must be divided into some territories. We can also imagine the ancient route from Tilaurakot to Lumbini, where the birthplace of Lord Buddha.

Fig.4 Sample of the site catalogue

4. Layer 2: Conservation Planning

Conservation Planning plays a role for protecting sites and their buffer zones. The protection mechanism for the property as an archaeological site in Nepal is based on "Ancient Monument Preservation Act 2013" under DoA. The restriction framework in/around the property and its buffer zone is based on the regulation by Municipality under the Local Self-Governance Act in Nepal, whereas VDC (Village Development Committee) cannot restrict.

4.1 The restriction today

Therefore, we target all Municipalities in Kapilbastu and Rupandehi in order to understand how they recognize the cultural heritage sites and whether they have prepared their plan for protecting sites. In coordination with a local archaeologist from LDT, we visited all offices of Municipality (hereinafter N.P.), two Municipalites in Kapilbastu: Kapilbastu N.P. and Banganga N.P. (Fig.5). Six Municipalities in Rupandehi: Lumbini Cultural N.P., Dewdaha N.P., Tilottama N.P., Sainamaina N.P., Butwal N.P., and Siddharth Nagar N.P. (Fig.6).

As most of Municipalities were formed in 2014, except for Kapilbastu N.P., Butwal N.P. and Siddharth Nagar N.P., the Periodical Plans under these municipalities are on the process of preparation or approval. They are basically for transportation and land use. The Lumbini Cultural N.P., which has the Development Committee under the Ministry, has not yet even started to prepare it. Even though Kapilbastu N.P. has a periodical plan for 2012-2017 with the conservation zone, where the new construction is regulated by one story (Fig.7, 8), it seems not working in practice. Since lack of information, we found that the other municipalities, where un-known archaeological sites were, did not pay attention to them unintentionally.

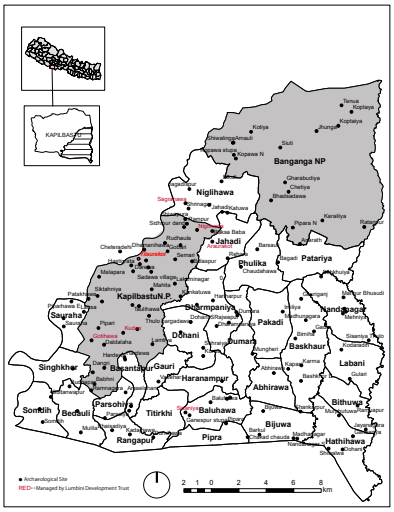

Fig.5 Administrative units in Kapilbastu

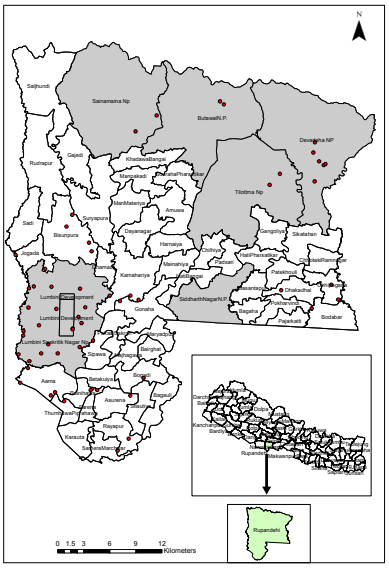

Fig.6 Administrative units in Rupandehi

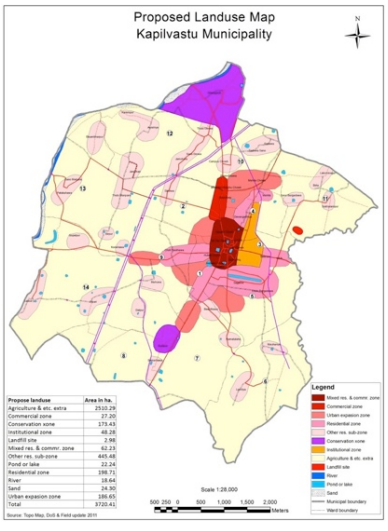

Fig.7 Zoning in Kapilbastu N.P.

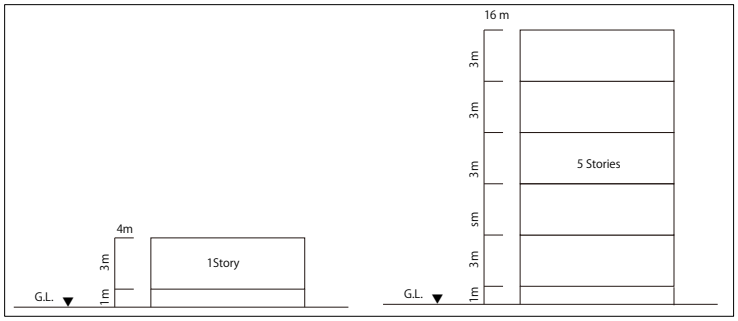

Fig.8 The height restriction in conservation zone(left) and the other(right)

4.2 Conservation Planning for Tilaurakot

As above mentioned, Kapilbastu N.P. has started to restrict the height of new buildings within one story by the zoning. The two conservation zones, adjacent Tilaurakot and Kudan, are the ones since 2012. Putting the conservation zone on the GIS data, we found that it does not cover other sites, which we recorded (Fig.9).

Fig.10 is our proposal of conservation planning for Tilaurakot based on both the risk map detailed surveyed by the archaeological team from Durham University and our layer 1. Buffer zone, however, will be determined by more careful archaeological survey near future. Therefore, detailed conservation planning requires collaboration with archaeologists and planners.

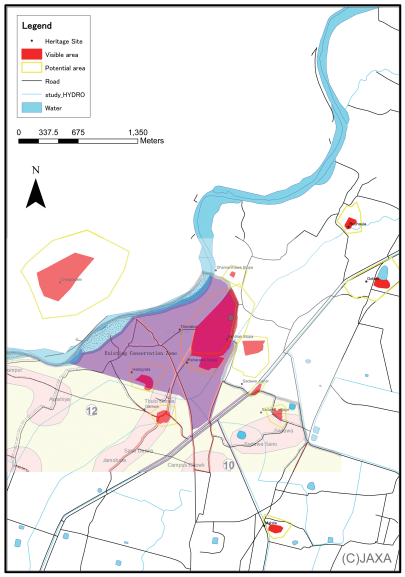

Fig.9 Kapilbastu Municipality Conservation Zone around Tilaurakot (purple)

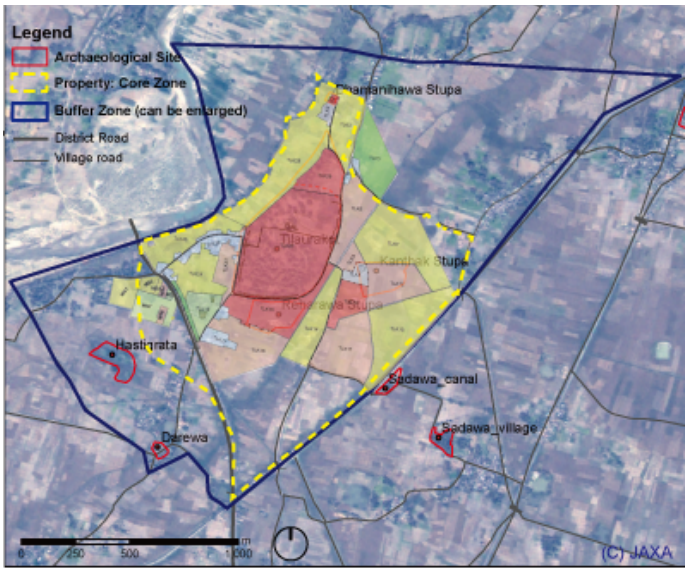

Fig.10 Proposed Conservation Planning for Tilaurakot

5. Layer 3: Development Planning

This is conducted based on layer 1 and 2, above mentioned chapters. Fig.11 shows proposed development planning for around Tilaurakot. Within the walled city of Tilaurakot, the archaeological interpretation map reported by Durham University was used as the base map for the visitor and pilgrim routes (Fig.12).

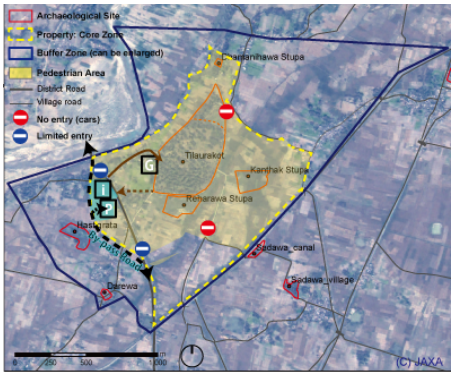

Fig.11 Proposed Development Planning for Tilaurakot

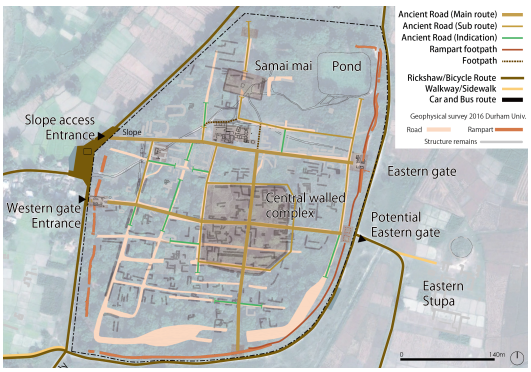

Fig.12 Proposed plan within Tilaurakot (by Dr.Kurose)

6. Conclusion

Referencing the UNESCO Lumbini project in the second phase from 2014 to 2017, this paper illustrated the method of how to integrate archaeological heritages into planning. The on-site survey on the layer 1, contrary to expectations, brought us various perspectives of the region and further collaboration with the archaeological team in the proper tourism. We conclude that the layer 1, which not only contributes to planning but also has the potential to stimulate the regional analysis, is essential before planning. Thus, the study suggests the methodology of integrating archaeological heritages into planning in such a rich archaeological region with this step-by-step approach. The mechanism for implementation of conservation planning and development planning for regional scale remain an issue. We will work on them in the next phase.

ACKNOWLEDGMENTS:

We thank the archaeological team from Durham University whose advice is a primal base for the archaeological database, conservation and development planning. We thank Dr. Takefumi Kurose and Mr. Masayoshi Nagano for the contribution to this project.

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