
Research Proposal for October 2018: IRAW@Bagan Settlement Archaeology Project

Submitted by

Professor Gyles Iannone
Principal Investigator/Professor
Department of Anthropology
Trent University

Dr. Pyiet Phyo Kyaw
Co-Director/Lecturer
Department of Archaeology
University of Mandalay

&

Dr. Scott Macrae
Co-director/Adjunct Graduate & Research Faculty
Department of Anthropology
Trent University

July 26, 2018
Table of Contents

| IRAW@Bagan Mission Statement and Logo | 3 |
| IRAW@Bagan Project Summary           | 5 |
| October 2018 Field Crew              | 9 |
| October 2018 Research Program        | 9 |
| October 2018 Itinerary and Loci of Field Operations | 10 |
IRAW@Bagan Mission Statement

The world’s tropical zones are witnessing the negative impacts of unchecked population growth, increasing wealth disparities, unbridled agricultural expansion, growing water demands, diminishing biodiversity, environmental degradation, escalating disease rates, and climate change. These are all urban issues. The proposed IRAW@Bagan study will highlight archaeology’s true strength – namely the ability to trace changes in urban forms and lifeways over time, and across multiple climate regimes, technological advances, and socio-ecological changes – to explore the root causes of the myriad issues faced by contemporary tropical metropolises.
The IRAW@Bagan Logo

The IRAW@Bagan logo on the cover of this proposal is derived from Jataka plaque #543 from the West Hpetleik Stupa: Sāma Jātaka (Sāma the Devoted Son). In the traditional Pali canon this story is listed as #540 of 547, but at Bagan three additional stories are often included as #s 497, 498, and 499 (for a total of 550), which pushes this story to #543.

A summary of the story can be found here:
http://usamyanmar.net/Buddha/Article/Sama%20jataka.pdf
The IRAW@Bagan project (Phase I) will generate an integrated socio-ecological history for residential patterning, agricultural practices, and water management at the Classical Burmese (Bama) capital of Bagan, Myanmar (11th to 14th century CE) across a range of significant ecological, climatic, economic, socio-political, and religious changes. This objective will be achieved through a settlement archaeology study within the peri-urban (mixed urban-rural) settlement zone immediately surrounding Bagan’s regal-ritual epicenter, which is still clearly defined by remnants of its original walls and moat. The importance of the proposed program of survey, excavations, and geo-spatial inquiry is grounded in the fact that our current understanding of Bagan society continues to be biased towards its upper echelons, namely its high-ranking nobles and religious functionaries. A settlement archaeology study within Bagan’s peri-urban zone will: 1) generate a more nuanced understanding of Bagan as a dynamic capital city; 2) provide insights into the unique characteristics of early urbanism in the tropics; and, 3) contribute to considerations of resilience and vulnerability in contemporary tropical metropolises.

One of history’s great Buddhist kingdoms, Bagan’s peri-urban settlement zone covers roughly 80 km² and encompasses over 2800 Buddhist monuments, including temples with decorated interior space, solid stupas containing relics, and monasteries. Given the context, it is understandable that scholarly investigations at Bagan have almost exclusively focused on elite and/or religious architecture, art work, and texts. Nevertheless, inscriptions and retrospective chronicles suggest that Bagan’s peri-urban zone was also home to a large and diverse support population that lived in well-organized (i.e., orthogonally planned) “clusters” or “wards” based on commonalities in status, ethnicity, occupation, and clientage (i.e., formal “bondage” to a patron, such as the Crown or Church). Unfortunately, the veracity of this tightly integrated and highly organized, “cellular” residential pattern has yet to be confirmed on-the-ground. Recent archaeological investigations have also suggested that Bagan’s peri-urban zone was of the “dispersed,” agrarian variety, and included significant green space as well as productive land, in addition to a small-scale, but nonetheless sophisticated water management system. Once again, these suppositions require empirical confirmation. Taking these issues into consideration, the following questions will serve to frame both the methodological approach for the IRAW@Bagan settlement archaeology study, and the integrated socio-ecological history that will result from this long-term research program.

1) How accurate is our current understanding of the commoner population that inhabited Bagan’s peri-urban settlement zone, given the elite-centric focus of our current data sets?

2) Can the posited heterogeneity and cellularity of Bagan’s peri-urban population be materially confirmed, given the diversity in status, ethnicity, occupation, and bondage suggested by the historic records?

3) If such diversity can be recognized archaeologically, what might this tell us about commoner agency, and shifting levels of adherence or resistance to the dominant, merit-based, Buddhist ideology, and the system of bondage that supported it?

4) Did different segments of Bagan’s peri-urban population exhibit varying degrees of resilience to changing socio-ecological circumstances – such as climate change – and if so, why?
5) How were individual Bagan houses, house-lots, and villages configured, what kinds of activities took place in these residential spaces, and did the nature of these spaces change over time?
6) Does the residential patterning in Bagan’s peri-urban zone reflect the orthogonal/compact tradition of China, or the quasi-orthogonal/dispersed tradition found elsewhere in the tropics?
7) Did Bagan’s city-scape transition from being more dispersed and haphazard to more compact and grid-like over time?
8) How extensive and interconnected were Bagan’s peri-urban water management and agricultural systems, how did they develop, and in what ways did different stakeholders engage with them?
မခက္ ဓက္အးက္မခက္ ရင္ည သုုန္အးက္ေ် းအ်ခကင္းမခက္ပရ၀င္ တ္ည ဗုု ၶသက က ္အ္ က်္ဥ (၂၈၀၀) အ်ခက္းရွ တ္သ ်္ႈပ္ ွးရွငကး မရခအ ပုုငွုုးမခကးပရ၀င္ တ္ည
ဗုု ၶသက က အးး္ ုုွင္ တ္ည ္အေ်ကင္း္ကးလပုုးလွုုလွုုမရက
လမ်ုုန္ငန္မခကး ရင္ည
/ သက ကအးး္ ုုွင္းကဗွ ုု်က မ်ုု ွင္
ပတက ရင္ည ႈကအပမခက္က ႈ္ေ် တ္သ မတ္ ုုွတပင္က ႈ္အႈအ်ခက
်္ႈကမခကး ရင္ည ၸရးးက ႈ္မခကးကပကးကပ း မခွိးႈပုုလင္
လရအ က လမအနငွုုင္မမဥ းအး်ွုုိအ က္ကပယကပိအနေ်
တ္သ ွုုတအ က ်ပမအ်ကင္နယ္အကမကပင္အပပးြင္
်္အ ္ွုုင္္ွုုင္မကမကမအးြတးရွ တ္ညိအးႈ
ုုွင္းကိအလညလကအးးလုုပ္ငန္း ရင္ည
ငင္းရကး တ္ည ္ႈွမ္းအးကင္နယ္အကမ္းွယကမခကး
္ကပင္ ငုုး္်ုုန္မခကးငုုး္လုုပ္ တ္ညိ
အကမ ယက မခကး ငွုုတ္ကပင္ အ းငယ္ တ္ည္အန္ငကးက ႈ္အ က္
လတ္း ္္ ငည္္းန္းးရွ တ္ညိအးႈ
မပ ္န္တ္ြပမမႈနႈ္မခကး်ွုု
အ က္ကပအနေ် တ္သ ငွုုတ္ကပင္ ္ငင္ကမင္ယမ္ ္ခ်္မခကး တ္
လ်္အးြတ းြင္ ်္အ ငမးန္လွုု္ပ္လခ်္ တ္သ
်ွႈရးပ္မခကး်ွုု
္အလးငကးလခ်္ အ္က်္ပရိ
အမး ္ြန္းမခကး်ွုု
IRAW
ပုုေပလမအနငွုုင္မမ္ ွုု္င္းကိအးရး
အကင္း ုုအး နအလညလကအးးလုုပ္ငန္းမရးးရွလကမတ္ညလမမမႈ းပြကးအးး မွုုင္း
းြ်္္ ပုုးကပိမတ္ညနတ္းလမ္းမခကး္က ႈ္
နယ္ပယ္ း္မရး္မတ္က ႈ္ပရ တ္သ
1) ဴငည္းန္းမခကး
ဴငည္းန္းမခကး
ဴငည္းန္းမခကး
2) ဴငည္းန္းမခကး
ဴငည္းန္းမခကး
ဴငည္းန္းမခကး
3) ဴငည္းန္းမခကး
ဴငည္းန္းမခကး
ဴငည္းန္းမခကး
4) ဴငည္းန္းမခကး
5) ပုံသဏ္ဌာန်များသောအခါ ဦးစီးချုပ်မှုကို ပေးနေစေခ်ကောင်းမှာလောလော? မိမိသို့မဟုတ် အခြေခံအလိုအပေးသည် အဘိဓာန်တွင် ဖော်ပြချက်ရန် မရှိခဲ့မှာလောလော? မိမိအလွတ်လည်းကောင်း အလွန်ကျန်းမာရေး သဘောသာချက်များကို သိရှိလိုရန် အဘိဓာန်များ သိရိယာ။

6) ပုံသဏ္ဌာန်များ၊ သွားနေစဉ်များ၊ စွမ်းရည်စွမ်း/အစိုးရအားသားတစ်ဦး အားလုံးကို အခြေခံစီမံပါ။ မိမိ၏လိုအပ်သော အခြေအနေကြောင်း သိရှိလိုသောအချိန်များကို အဘိဓာန်ထဲမှ သိရိယာပေးလိုက်ပါ။

7) ပုံသဏ္ဌာန်များကို အလွန်ကျန်းမာရေးတစ်ခု မှု့မှုများ ရှိနေသောကြောင့် သိရိယာ။ မိမိသို့မဟုတ် အဘိဓာန်များထဲမှ များသောကြောင့် သိရှိလိုက်ပါ။

8) ပုံသဏ္ဌာန်များကို အယ်ဒါရောင်ပေးရန် မိမိ၏လိုအပ်သောအချိန်များကို အနေဖြင့် ပြဆောင်ချက်နှင့် ထားနေစဉ်များကို အနေဖြင့် သိရှိလိုက်ပါ။ မိမိသို့မဟုတ် အယ်ဒါရောင်ကြောင့် ပြဆောင်ချက်များကို အနေဖြင့် သိရှိလိုက်ပါ။
October 2018 Field Crew

1. **Professor Gyles Iannone** (*Trent University*), Principal Investigator
2. **Dr. Pyiet Phyo Kyaw** (*Mandalay University*), Co-director
3. **Nyein Chan Soe** (*Yadanabon University*), Cultural Anthropologist
4. **Keiko Lui** (*Eco K Company*), Environmental Consultant
5. **Naing Soe** (*University of Yangon*), Cultural Anthropologist
6. **Khin Lay Maung** (*University of Yangon*), Field Assistant
7. **Paing Thet Phyo** (*University of Yangon*), Field Assistant
8. **Kyawswar Win** (*Mandalay University*), Field Assistant

October 2018 Research Program

Our proposed October 2018 research will take place over the course of 11 days, from October 1st to 11th (Table 1). The intent of this short research trip is two-fold: 1) We will share the goals of our settlement archaeology research program with university students and faculty members at Mandalay University and Yadanabon University; 2) We will conduct ground reconnaissance and hold meetings in Bagan in preparation for our more extensive April-May 2019 archaeological field work. The itinerary and specific research activities for October 2018 are as follows:

1. **September 30th – October 3rd: Mandalay**
   a. Professor Iannone will give two archaeology lectures at Mandalay University and Yadanabon University;
   b. We will visit archaeological sites around Mandalay.
2. **October 4th – 9th: Bagan**
   a. We will make preparations for our April-May 2019 archaeological research:
      i. We will conduct further reconnaissance of two possible ancient settlement sites in the Bagan peri-urban zone, the Shwe Creek and Otein Taung sites, in efforts to determine the best locations for our excavation units (see Figure 1);
      ii. We will present our anticipated April-May 2019 research to the Bagan Department of Archaeology;
      iii. We will discuss our April-May 2019 research plans with the relevant land owners;
      iv. We will confer with Bagan Museum officials regarding the possible use of space in the basement of the Museum for future analysis and artifact storage purposes.
Table 1. Itinerary for the October 2018 Field Work.

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depart DMK 11:00 (FD 244)</td>
<td>University of Mandalay Lecture</td>
<td>University of Yadanabon Lecture</td>
<td>Depart Mandalay</td>
<td>Depart Mandalay</td>
<td>Depart Mandalay</td>
<td>Depart BKK 12:20 pm</td>
</tr>
<tr>
<td>30</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Sep 2018</td>
<td>October 2018</td>
<td>October 2018</td>
<td>October 2018</td>
<td>October 2018</td>
<td>October 2018</td>
<td>Nov 2018</td>
</tr>
<tr>
<td>Palace View Hotel - Mandalay</td>
<td>Aung Su Pyae Hotel - Bagan</td>
<td>Meetings with Landowners</td>
<td>Aung Su Pyae Hotel - Bagan</td>
<td>Meetings with Museum Staff</td>
<td>Depart Bagan</td>
<td>Depart BKK 12:20 pm</td>
</tr>
<tr>
<td>Depart BKK 12:20 pm</td>
<td>New Siam Riverside Hotel</td>
<td>Depart MDL 12:45 (FD 245)</td>
<td>Arrive Mandalay</td>
<td>Arrive Mandalay</td>
<td>Arrive Mandalay</td>
<td>Arrive Mandalay 21:55</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Otein Taung Reconnaissance</td>
<td>Otein Taung Reconnaissance</td>
<td>Otein Taung Reconnaissance</td>
<td>Otein Taung Reconnaissance</td>
<td>Otein Taung Reconnaissance</td>
<td>Otein Taung Reconnaissance</td>
<td>Otein Taung Reconnaissance</td>
</tr>
</tbody>
</table>

Figure 1. Location of the Shwe Creek and Otein Taung Settlement Sites.