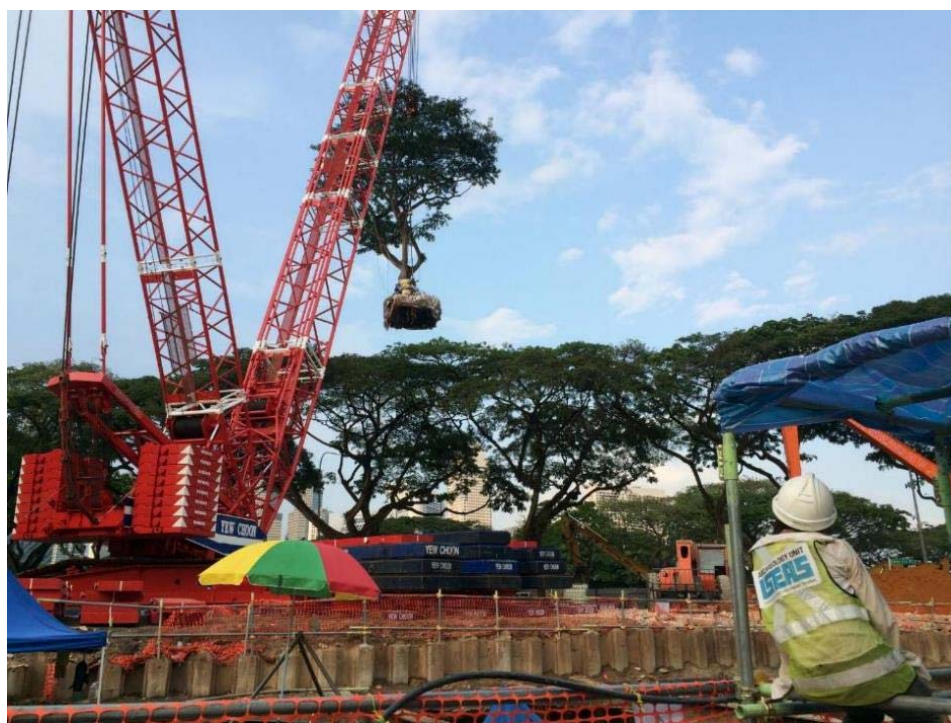




SPEAKER 1: MR LIM CHEN SIAN
DEVELOPMENT-LED ARCHAEOLOGY IN SINGAPORE

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2015 Empress Place Rescue Archaeology Excavation of the ISEAS Archaeology Unit

**WORKSHOP ON
THE HERITAGE OF ANCIENT AND URBAN SITES:
GIVING VOICE TO LOCAL PRIORITIES
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ABSTRACT

Since the inception of archaeology as a discipline in Singapore, to date thirty archaeological sites have been studied, of which twenty-five of them were development driven. Singapore presently does not have the necessary heritage impact assessment regulations, least to say of archaeological specific planning policies or guidelines. Despite the want of a legal framework within the planning and heritage acts of Singapore, pre-development or development-led archaeology has been remarkably successful in the highly urbanised city-state.

Over the past decade alone, some twenty archaeological sites were investigated, where 85% were development-led. This sharp rise in the archaeological undertaking was largely the result of a growing team of Singaporean and more importantly, Singaporean-led archaeologists lobbying and championing for the need of archaeology. Working and collaborating with a multifarious spectrum of interest groups and parties – from developing agencies and developers; non-government organisations and state agencies; private foundations and philanthropists; to education institutions, teachers and school children, the media and the individual volunteer – the archaeology of Singapore is both a very public and personal nature. This paper presents some the recent case studies on lobbying, engaging the varied interest, and often not-so-interested groups, and the promotion of rescuing the hidden past prior to the initiation of construction development.

BIODATA

Lim Chen Sian read finance and archaeology at Boston University, and received his MA Southeast Asian Studies from the National University of Singapore, and is presently undertaking his doctorate at the Institute of Archaeology, University College London.

CONFERENCE PAPER

DEVELOPMENT-LED ARCHAEOLOGY IN SINGAPORE

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Introduction

Since the inception of archaeology as a discipline in Singapore in 1984, thirty archaeological sites have been studied, of which twenty-five were development driven. Singapore presently does not have the necessary heritage impact assessment regulations nor archaeology-specific planning policies or guidelines. Despite the want of a legal framework within the planning and heritage acts of Singapore, pre-development or development-led archaeology has been remarkably successful in this highly urbanized city-state.

Over the past decade alone, some twenty archaeological sites have been investigated, where 85% were instigated by development in areas with high archaeological potential. This sharp rise in archaeological undertakings was largely the result of a growing team of Singaporeans and more importantly, Singaporean-led archaeologists who lobbied and championed for the need of archaeology. Working and collaborating with a diverse spectrum of interest groups and parties – from developing agencies and developers; non-government organizations and state agencies; private foundations and philanthropists; to education institutions, teachers and school children, the media, and individual volunteers – the archaeology of Singapore is both a very public and personal nature. This paper presents a brief history of the processes on lobbying, engaging the varied interests, the often not-so-interested groups, and the promotion of rescuing the hidden past prior to the initiation of construction development.

The Players

The principal actors in Singapore archaeology are an ad-hoc balance of academic institutions where the archaeologists are based, state agencies, and developers. Naturally the archaeologists have been the primary drivers for the lobbying and undertaking of archaeological investigations and spearheading the discussion of potential assessments and projects.

Academia

Archaeologists as social scientists have traditionally been affiliated with research institutions and archaeology in Singapore has operated under the umbrella of academia since 1987 at the History Department National University of Singapore (NUS). It continues today with the Archaeology Unit (AU), ISEAS-Yusof Ishak Institute (ISEAS) where excavated materials from 2010 onwards are being processed and the Department of Southeast Asian Studies at NUS, where a large collection of excavated materials from the 1980s-2000s are stored.

State Agencies

The National Heritage Board (NHB) is the primary organization responsible for heritage matters in Singapore. Formed in 1993 with the charge of National Museum of Singapore, National Archives and

Oral History Department, the board's mission is "to preserve and celebrate our shared heritage. NHB undertakes the roles of safeguarding and promoting the heritage of our diverse communities, for the purpose of education, nation-building and cultural understanding". Prior to the formation of the Board, archaeological interests were occasionally under the purview of the National Museum of Singapore as the public institution for local history and heritage; the first archaeological investigation in Singapore in 1984 was inaugurated by the museum. In 2013, the Board established the Impact Assessment & Mitigation Division and while it does not employ any archaeologists or directly undertake archaeological investigation, archaeology as a subject matter comes loosely under its remit today.

Albeit NHB may be the naturally appropriate organization to engage with archaeology, there are other agencies within the Government of Singapore that on occasion are involved archaeological efforts. The National Parks Board oversaw the 1984 archaeological excavation in Singapore at Fort Canning, and more recently through the Singapore Botanic Gardens, archaeologists were able to conduct a survey in the Jacob Ballas Children's Garden. In 2006, the Sentosa Development Corporation initiated and funded an impact assessment for the proposed casino complex, making it the first state agency to pro-actively conduct such a study in Singapore. In recent years, the ISEAS Archaeology Unit began begun collaborating with the Land Transport Authority, one of the agencies responsible for infrastructure development and construction. Two major development projects where archaeologists conducted surveys or watching briefs under the Transport Authority are the Singapore River Diversion, and Bukit Brown Cemetery

As the regulatory or legal framework for archaeology is still non-existent, relationships between the archaeologists and state agencies have been largely personality and individually driven through a loose collegiate network of sympathizers and supporters within the government entities. Such dependency on personalized relationships has obvious limitations and drawbacks. Staff movements, the departure of sympathetic personnel and the NHB Board's diverging management directions led to a hiatus of collaborations with the National Heritage Board between 2004 and 2009.

Singapore Heritage Society

In the absence of official engagement with state agencies, archaeology sought out alternate stakeholders in the local heritage and cultural scene. Established in 1986, the Singapore Heritage Society is a non-profit, non-government organization and registered charity. The society's aims are "dedicated to the preservation, transmission and promotion of Singapore's history, heritage and identity". Originally founded as a built heritage and architectural interest group, the society has over the years has been recognized as a reputable voluntary organization championing local social history, intangible heritage, and conservation issues. Several archaeological projects were conducted in partnership with the Singapore Heritage Society including a brief maritime survey at Keppel Marina prior to a high-rise residential development, and jointly sought funding for the Victoria Concert Hall Rescue Excavation and the Adam Park Battlefield Archaeological Survey.

Educational Institutions & the Supply of Volunteer Labor

A final important factor in the local archaeological scene is the dependence on educational institutions for the supply of student volunteer labor. Ever since the first digs in the 1980s, volunteers have been the driving force behind the projects; indeed, the archaeologists were often volunteers themselves.

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However, development-led archaeology projects are increasingly complex and time-sensitive, where the site is shared with active and on-going construction. As such, government-mandated construction health and safety requirements needed to be followed; the volunteers who “dug at their own risk” approach has been relegated to the past. The current ISEAS Archaeology Unit departed from the volunteer model. Student labor, while appreciated and welcomed, is presently dedicated to the necessary post-excavation process of cleaning, sorting, and cataloging of the finds under strictly controlled conditions with adequate supervision.

Development

As noted earlier, there are currently no heritage impact assessment laws in Singapore, nor any planning policy regulations or guidelines that require any archaeological evaluations prior to construction development on a property. This is the case even where prior knowledge of the site’s archaeological and historical significance has been registered with state agencies. The process of negotiation starts when the archaeologists receive information on impending development, and initiate contacts with the developer, or enlist the relevant state agency’s assistance to minimally intercede with an introduction to developer. Occasionally, non-government organizations like the Singapore Heritage Society have also raised concerns about development impact on a site and have helped to expedite the negotiation processes.

Another approach in development-led archaeology has been to conduct the investigation under the auspices of community projects that involve local residents and school children in the excavation of their neighborhood. Two examples of such an approach in Singapore have been the excavations during the redevelopment of Duxton Hill in 1989 and the Istana Kampong Gelam in 2000. The former was supported by local residents’ grassroots organization, the Tanjong Pagar Citizens’ Consultative Committee, where a brief excavation was carried out in the alleyways behind a series of early 20th century shop houses. The Istana Kampong Gelam, the historical palace site of the Sultan of Singapore, permitted high school students to participate in the excavation of the compound was sponsored by the Malay Heritage Foundation. The success of the local community involvement is difficult to measure, but is effective as a safeguarding tool for ensuring an archaeological investigation took place before development.

In the past decade, state agencies who have built up a relationship with the archaeology team have been increasingly pro-active and engaged archaeologists early on in the discussions pertaining to development. This relationship however, is often the result of individual sympathetic officials within the agencies who are aware of the site’s cultural and archaeological significance, rather than a universal agency mandated policy or regulatory approach. Occasionally, sympathetic board members or advisory committee members of the government entities have also personally championed the necessity of investigation of a site prior to development.

Over the past five years, archaeologists have successfully evaluated and investigated the following sites, with the Archaeology Unit at ISEAS involved in ten of the eleven inquiries:

Development Led Investigations					
S/No.	Site	Year	Developer	Agencies	Investigation
1.	National Art Gallery	2009 & 2010	NHB	NHB ISEAS	Evaluation & Rescue Excavation
2.	Fort Canning Spice Garden	2010	NParks	NParks NUS	Rescue Excavation
3.	Victoria Concert Hall	2010 & 2011	NAC	NAC NHB SHS ISEAS	Evaluation & Rescue Excavation
4.	Indian Heritage Centre	2012	NHB	NHB ISEAS	Evaluation
5.	The Cathedral of the Good Shepherd	2013	Private	ISEAS	Evaluation
6.	Singapore River Diversion	2014	LTA	LTA ISEAS	Watching Brief
7.	Singapore Management University	2014	Private	NHB SHS ISEAS	Evaluation
8.	Jacob Ballas Children's Garden	2014	NParks	NParks NHB ISEAS	Survey
9.	Bukit Brown Cemetery	2014	LTA	LTA ISEAS	Rescue Excavation
10.	Empress Place	2014 & 2015	URA	URA NHB ISEAS	Evaluation & Rescue Excavation
11.	Palmer Road	2016	LTA	NHB ISEAS	Evaluation

Funding the Projects

Historically archaeology has always been hard-pressed for resources and sufficient funding. Much of the author's time is spent fund raising and seeking adequate resources to undertake the necessary evaluation and excavation work. What limited funding there is, normally is primarily allocated to the fieldwork, and very little remains for the post-excavation processing and analyzing of finds. Today

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Singapore archaeologists are challenged with the backlog of unprocessed and studied finds from excavations decades ago.

Successful funding has been gratefully received from philanthropic foundations, notably the Lee Foundation who over the years has been appreciative and supportive of archaeological investigations. The archaeologists have also been moderately successful with receiving grants from the now-defunct Heritage Industry Incentive Programme (Hi2P) administered by the National Heritage Board between 2010 and 2011, where up to 50% of the project amount was provisioned was another patron of Singapore archaeology. Two major projects—the Victoria Concert Hall Rescue Excavation (2011) and the Adam Park Battlefield Archaeology Survey (2012)—were beneficiaries and funded by this program in collaboration with the Singapore Heritage Society.

Over the years, institutions under NHB have when possible provided small funding assistance from their own development budget to undertake limited archaeological survey or evaluations. These amounts were often restricted and principally covered only the contractor costs for mechanical rentals, replanting, and/or contract labor hire. Some examples of projects that fall under this category include the 2009 evaluation at the National Art Gallery and the 2012 investigation at the site of the Indian Heritage Centre. Since 2014, with the establishment of the Impact Assessment & Mitigation Division in the National Heritage Board, a more centralized funding channel is in the works and the division has funded the 2014 evaluation at Singapore Management University, and more recently, provided partial funding toward the costs for the 2015 Empress Place Rescue Archaeology Excavations of URA, NHB and the ISEAS Archaeology Unit.

Academic institutions such as ISEAS and NUS where archaeologists are based have been significantly supportive through the availability of research grants and other miscellaneous funds. Most of these monies were expended on hiring of part-time research assistants, and the essential equipment and supplies for the project. When funding was not available, state agencies like the National Parks Board with their extensive logistic infrastructure, contributed in kind with labor and use of mechanical excavators and transportation. Otherwise, much of the funding has been obtained privately and not infrequently from the archaeologist's personal purse.

The true costs of an excavation usually far exceed and are never reflected in the funded amount. Consideration in tabulating of the true costs should encompass the hours clocked by volunteer labor, goodwill from individuals, *pro-bono* loan of equipment, services and consultancy from professional surveyors, conservators, and other specialists. More importantly the honoraria for archaeological personnel have been historically low and it was only recently that the hourly honorarium become on par with that of a pizza deliveryman (benchmarked to Domino's Pizza at \$15/hr) in Singapore.

The Empress Place Rescue Archaeology Excavation demonstrates a typical funding structure depicting the breakdown of costs and expenses incurred for fieldwork. The project saw the National Heritage Board funding 60% of the project with the remaining 40% privately raised by archaeologists.

Fieldwork Expenses		
S/No.	Item	Percentage
1.	Personnel (Supervisors & Research Assistants) *	63%
2.	Contractor Hire (Field Laborers)	18%
3.	Field Equipment & Supplies	12%
4.	Services (Insurance, rental etc)	7%
Total		100%

* Part time hires, these supervisors and assistants make up the core of the archaeological field crew. Excludes remuneration of project archaeologist.

Volunteers and Project Management

Archaeology as a discipline offers a remarkable platform for enlistment of volunteers, particularly students. Often employed under the auspices of education, training and enrichment, the nature of recruiting and reliance on volunteer labor has many implications in relation to time allocation and responsibility of the project members. The project archaeologists have the added responsibility to provision the education and training components of fieldwork. Volunteer management should be considered a specialist skillset in its own right and tends to be a complex process. The archaeologist employing volunteer labor requires the ability to do a multitude of tasks akin to the skills of the long jump, the triple jump and the 110-meter hurdle of the sporting trifecta. Responsibilities include ensuring that excavation standards and controls are met and being able to sustain the interests of participants. There is also assuring that target schedules are met by making sure sufficient numbers of volunteer assistants are committed and show up for work.

For the first two decades of Singapore archaeology the reliance on expatriate and student volunteers were the *modus operandi*, an absolute dependency that has compromised excavation standards and recovery rates. An exceedingly high ratio of 40 volunteers to a single supervisor has been recorded on site, and it is unlikely that detailed monitoring and care was able to be achieved for the excavation. It was exponentially more challenging and detrimental to projects to employ of high school juveniles as the principal volunteers, as unfortunately much time was expended simply on the control and discipline of the volunteers rather than conducting productive fieldwork. Dependence on expatriate volunteers too have proved inconsistent as many within this highly mobile subgroup have extensive travel schedule and a host of other varied social commitments.

Since 2006, archaeological investigations have moved away from this model, and instead recruited a core of Singaporeans who undertake the fieldwork, ensuring that a trained and experienced work crew is always committed on site and to the project. The dependency on volunteers were drastically reduced in the field and when volunteer labor is employed, the Archaeology Unit team has taken pains to enforce measures where adequate supervision are in place at all times, and that field standards are

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practiced and adhered to. That is, no volunteer would excavate or be involved in any process without immediate and direct supervision.

Development-Led Archaeology Case Study

The 2015 Empress Place Rescue Archaeology Excavation of the ISEAS Archaeology Unit has been the largest archaeological investigation ever undertaken in the history of Singapore. The complexity and scale of the project involved the negotiation and intervention of several state agencies. While atypical in the scale and reach of previous development-led projects, the Empress Place excavation also presents an insightful case study of the engagement by state agencies, builders, the public, and the media.

The rescue excavation came about when large-scale development plans to landscape the Singapore Riverfront and was announced as part of Singapore's 50th Anniversary celebrations. This involved the transplanting of 30 or 40 year old rain trees, the realignment of the roadway, as well as the creation of a grass plaza in front of the Victoria Concert Hall and Theatre.

The Archaeology Unit ISEAS first approached the developing agency, Urban Redevelopment Authority (URA) in early 2014. A short evaluation on the lawns of the Empress Place precinct to ascertain the existence of archaeological deposits was funded by ISEAS in June 2014. The evaluation demonstrated that the site was extremely rich and dense with archaeological remains and the findings were reported to NHB and URA, resulting in the negotiation of a window of opportunity for an archaeological rescue excavation to occur prior to construction works.

The unexpectedly high yield of artifacts (3.5 tonnes) and the actual of extent of the impact zone (initially estimated to cover only 216sqm but in reality 1,050sqm) caused some conflict between the developer's arduous desire to adhere to their construction schedule and the need to expeditiously salvage and record as much archaeological data as possible from impending destruction. The principal area affected by development measures 70m x 15m, with several smaller parcels of ancillary sites, making the project the largest archaeological excavation undertaking as well as the richest and densest archaeological deposits to date documented in the country.

The lack of an existing legal framework for the protection of archaeological remains pitted development mission-oriented objectives against saving a previously unknown and important fragment of the country's past. While debate on the fate of the archaeological remains took place behind the scenes between the agencies and archaeologists, the confusing tussle briefly surfaced on social media and was picked up by the local press. This generated a large public turn out on site to volunteer their labor and time, in a gallant bid to play a role in saving the archaeological finds from destruction. Officials from the various government agencies and the archaeology team then hastily assembled a joint response to this outpouring of public interest, and eventually an extension to accommodate additional archaeological excavation was arranged.

Without a defined legal framework, the rescue excavations brought to the forefront the procedural uncertainties when addressing archaeological mitigation and protection of sites. This ultimately resulted in the state agencies and archaeologists being unable to collectively and effectively resolve the conflicts of their respective mission objectives. On one end, the archaeology team was ethically

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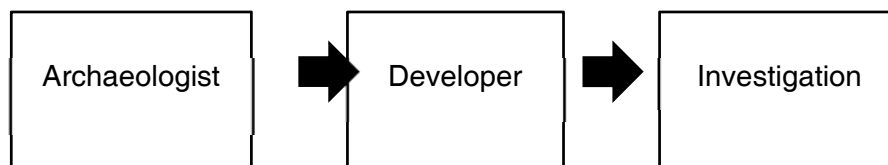
bound to salvage the country's past and is cognizant of the fact that rescue excavations are the last resort. A rescue excavation is the final opportunity from which to recover the remains prior to destruction. On the other, the schedule-minded and cost conscious development officials had to ensure that there was careful expenditure of public monies in the development and assure that the completion of the construction project would be on time.

The Future?

Over the years, the model where archaeologists have initiated the dialogue, lobbied, and negotiated for the necessity of pre-development evaluations and investigations have evolved into one where there is now a conscientious and pro-active intervention by the National Heritage Board and other relevant state agencies. A brief procedural model of in the evolution of relationships between the various stakeholders and their responsibilities is outlined as follows:

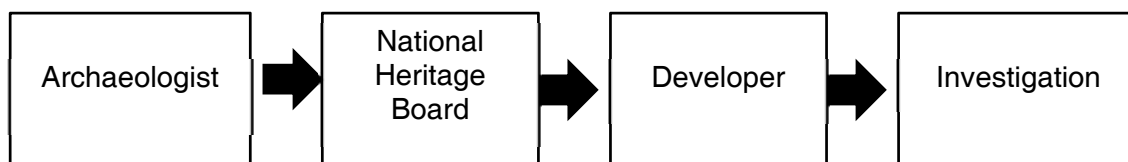
1980s to 2000s

The Archaeologist would initiate dialogue and enter negotiations directly with the developer (be it state or private).



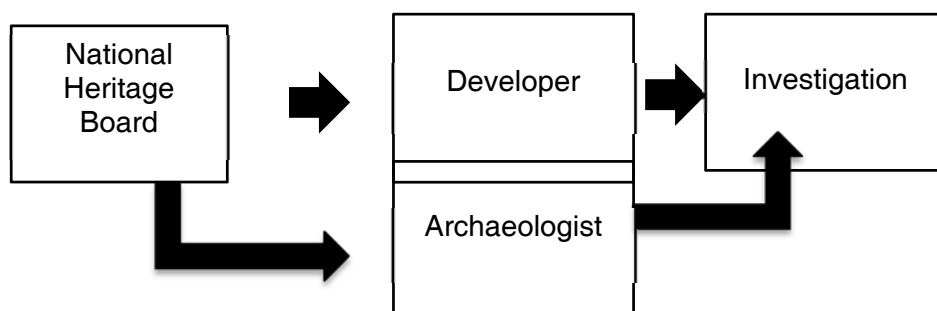
2010 to 2015

The Archaeologist would initiate the dialogue with a state agency as an intermediary and the latter in turn negotiates with the developer (state or private).



The Future?

The state agency would initiate the protocol, looking into the necessity of impact assessment with developer (state or private), and would engage archaeologists as technical consultants and specialists for investigation.



The last decade has seen a marked increase in the number of archaeological investigations in Singapore that were development-led. It is not easy however to assess to what extent was this due to

a greater awareness or participation by state agencies and developers in the dialogue to address archaeological mitigation prior to development. In actual likelihood, this is but the consequence of the amplified and more aggressive lobbying activities by archaeologists.

While more archaeological investigations have been conducted, it is undeniable that archaeology is still significantly underfunded, where the majority, if not the entirety of funding channeled to the more urgent excavation and fieldwork, with little allocated for the necessary post-excavation processing, analysis and storage of the finds. Storage and archiving of finds in fact deserves a separate discussion; briefly, that in a development-driven economy such as Singapore, development-led archaeology will inevitably yield increasing amounts of archaeological materials in the future, as more sites become under threat and are excavated.

With anticipated proliferation of development related investigations in the future, two crucial areas need urgent attention: 1) the development of a legal framework for archaeological impact assessment and the protection of archaeological assets; 2) the inclusion of archaeologists as professional consultants and advisors on development planning committees and relevant heritage site management, whose representation is currently lacking. As this paper has demonstrated, most of the archaeological projects conducted thus far were the result of the archaeologists' active and determined lobbying, and efforts to see professional archaeological advisory as part of the state agencies' strategic oversight of development in Singapore urgently need official implementation.

In conclusion, and despite the tone of many of the elements described in this paper, the future of development-led archaeology can be treated with a cautious optimism. Fortunately, development threat to sites can be resolved early in the discussion and negotiation process. With adequate funding, resources can be put in place to conduct the necessary evaluations and rescue excavations. A broader and longer-term mission would be to escalate the professionalization of the archaeology in Singapore, thus ensuring sufficient trained personnel are available for future development fueled demands. Within its modest resources and abilities, the Archaeology Unit at ISEAS is presently training the next generation of Singaporean archaeologists to lead and tackle new challenges in development-led archaeology, but it cannot be alone in this pursuit and requires the proactive collaboration of the state agencies responsible for heritage and development.