ARCHAEOLOGICAL RESEARCH ON THE PADANG AND IN THE
ST. ANDREW’S CATHEDRAL CHURCHYARD:
ST. ANDREW’S CATHEDRAL ARCHAEOLOGICAL RESEARCH PROJECT
PROGRESS REPORT SUMMARY SEPTEMBER 2003 – JUNE 2004

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Overview
St. Andrew’s Cathedral is embarking on development plans to construct an underground auditorium on its present compound. This project on the west lawn of the church (bordering North Bridge Road) will cover 2,400 sq ft.

This report describes research conducted by archaeologists from the National University of Singapore, funded by the Asia Research Institute, American Express Corporation and National Heritage Board, during a period of 28 weeks. All necessary approvals for archaeological investigation on the grounds of the Cathedral were issued by 15th September 2003 and investigations commenced the next day. Apart from work stoppages for Sundays and occasional public holidays, the research team has worked a total of 177 days. The current phase of large-scale salvage excavations had to be concluded on the 10th of April 2004 when the site was handed over to the church’s contractors for development. Soil removed from the excavation site has been transported by truck to another part of the church’s property where it can be sifted in order to recover small artifacts. A small shelter has been erected in the cathedral grounds where artifacts found during the excavation are stored, and will be washed, sorted, and subject to other analyses.

This research has yielded sufficient data to demonstrate that a large archaeological reservoir exists beneath the grounds of the Church. A significant quantity of 14th-century remains was recovered, among which are several types of artifacts not previously recorded from Singapore.

Research Progress
The archaeological investigation of St Andrew’s Cathedral involves five phases:

1) Preliminary Research and Proposal - The collection and review of existing literature and archival/historic documents relevant to the property, as well as meetings and discussions with church authorities, architects and governmental agencies. This phase was initiated with a meeting at the Church on 13th March 2003.

2) Surface Survey – The archaeological potential of the site was assessed by inspection of the property on 19th March 2003. On the basis of this inspection, a preliminary proposal was produced and forwarded to the Church in April 2003.

3) Augering – Upon receiving approval for commencing of archaeological research in September 2003, seven 50m transects were laid out within the zone to be affected by the Cathedral’s development project, and soil samples were collected by augering along the transects at 10m intervals. All augering holes were immediately backfilled. More samples were collected by the same method along additional transects laid out on the south and east lawns, away from the impact zone. Supplementary augering tests were conducted during later phases of the project near test units with the intention of assessing the benefit to be obtained either by extending extant pits or opening up additional pits.

4) Test Pit Excavations – Test trenches measuring 2x1m were excavated within the impact zone to sample the sub-surface stratigraphy, document the archaeological record, and recover any existing artifacts. The test units were excavated to a maximum depth of 2m, at which the water table is reached. Within the first week after commencing work, two test units were completed in the impact zone. To date 87 test units have been excavated – 82 pits within the impact area and 5 pits on the cathedral’s south lawn. Test excavations in the west and south lawns revealed undisturbed layers of 14th-century artifacts, including imported porcelain and stoneware from China, and locally manufactured earthenware.

Soil samples have also been collected to permit the study of the site’s stratigraphic and sediment composition, as well as changes in environmental conditions between the past and present. During the excavation, test trenches were backfilled and cordoned off as safety precautions as well as to permit the fill to settle.
5) Salvage Excavations – The objective of the salvage phase was to recover as much archaeological data as possible. This phase began in December 2003. Four initial Trial Salvage Pits, designated as the 1000, 2000, 3000 and 5000 series consisting of individual units measuring 2x1m, were opened along the trench lines of the test pit phase. Sites for these Trial Salvage Pits were determined based on the discovery of locations with high densities of artifacts identified during the Test Pit Phase. A total of 51 2x1m units were excavated within the series.

Full Scale Salvage Excavations within the impact zone were conducted in February 2004 with an area of 30x20m demarcated for this final phase. This phase was directed at speeding up the recovery of artifacts from the pre-colonial period. Units were dug until sterile soil or the water table was reached. The top 30cm sediment within this salvage area was removed by a mechanical excavator hired by the archaeological team; this soil was stockpiled for screening at a later date. Sifting of this soil is still in progress.

Preliminary Findings
The investigation uncovered undisturbed remains of ancient 14th century Singapore within the church’s compound, yielding the inference that the ancient settlement extended all the way from the Singapore River to Stamford Road. Analysis of artifacts from both the 14th century and the colonial era has already begun to yield new insights into the pre-modern occupation of Singapore.

Excavation within the impact zone revealed a rich layer of colonial-era remains. Newly-discovered artifact types of interest include 19th century coinage, military badges, and buttons. Other colonial artifacts comparable to remains found in previous excavations on other Singapore sites include glass, building materials, metals, and ceramics. Significant numbers of colonial era bricks found in Pit 28 may suggest the existence of a historic brick pathway. Small arms ammunition (both for rifle and revolver) of WWII vintage was uncovered. Unspent cartridges were surrendered to the police for safe disposal.

Pre-Raffles artifacts uncovered comprise imported porcelain and stoneware from China, locally manufactured earthenware, glass beads and bangles, worked stone, and Chinese coinage. These pre-colonial findings are stylistically dated to the 14th century or earlier. Chinese coins include those of the Song and Yuan dynasties. Thus far five intact stoneware vessels, along with several porcelain celadon jarlets believed to be of the 14th century have been recovered. These are the first intact 14th-century artifacts to be discovered in controlled archaeological excavations in Singapore. A group of similar objects was found at the Old Parliament House, but these were discovered by construction workers and therefore their contexts were not clear.

Other unique artifacts found at St. Andrew’s Cathedral include a tubular carnelian bead, probably from India, a Yuan dynasty 10-cash coin from China, a Sri Lankan coin of the 13th century, and a carved stone human head.

Excavation Schedule
The excavation at St. Andrew’s Cathedral has been the most extensive, longest-lasting, as well as the most systematically designed and executed archaeological project in the history of Singapore. The project was supported by volunteers ranging from students, to members of the Church, Friends of the Museum, museum docents, and the public.

The total of soil removed amounted 1009 metric tons or 636 m³, yielding approximately over 300,000 artifacts weighing an estimated 1 ton. This approximately equals the amount of artifacts recovered in all previous archaeological research in Singapore.

Although the site along North Bridge Road was surrendered to the contractors for development on 10th April 2004, archaeological activities on a reduced scale will be permitted in areas of the compound unaffected by the construction. This allows further soil sieving for artifacts from the
back heap stockpile, laboratory processing of artifacts on site, and opportunities to introduce
more students and volunteers to the practice of archaeology.

Public Outreach and Education
Publicity given to the archaeological excavations at St. Andrew’s Cathedral by both the mass
media and interest groups have resulted in increased awareness and interest in Singapore’s
archaeology among the public and educational institutions. A display of the artifacts uncovered
set up at the Cathedral’s Ground Breaking Ceremony on Sunday 23rd November 2003 generated
much interest among members of the church’s congregation.

Several educational programs were developed with various schools and institutions, enabling
their students to participate in the excavations as part of their curriculum or as enrichment
activities. The success of this outreach and education work in bringing school kids and interested
members of the public to the site illustrates that the participants clearly received a better
understanding of the significance of the site, archaeology, and the church, through the
opportunity to engage in practical activities.

The following schools were involved in the dig as part of an education program developed for
their institutions:

Anglo Chinese Junior College
Anglo Chinese School (Independent)
Chinese High School
CHIJ Primary (Kellock)
Dunearn Secondary
National Junior College
National University of Singapore CRM Class
Pasir Ris High
Queensway Secondary
St.Andrew’s Junior College
St.Andrew’s Secondary
Yio Chu Kang Secondary
Tanjong Katong Girls School
Temasek Polytechnic-British Petroleum Mentoring Program, involving Tampines area
neighborhood schools

Also conducted were the following half-day archaeology workshops which involved participants in
dig activities at the site:

Singapore History Museum Archaeology Workshop for Adults - 8 sessions
Singapore History Museum Archaeology Workshop for Kids - 2 sessions
Singapore History Museum Archaeology Workshops for Schools - 2 sessions
National Library Board Aspiration Pathfinder Program Archaeology Workshops - 4 sessions

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Acknowledgements
The research project would not be possible without the enthusiastic support of the American Express Foundation, Asia Research Institute NUS, Singapore History Museum, Southeast Asian Studies Programme NUS, St.Andrew’s Cathedral; favorable media coverage from Straits Times; Newspaper, Channel News Asia, Channel U, Disney Channel, Mediacorp Radio; and the innumerable volunteers and students who assisted in the excavation, laboratory, and education and outreach programs.
St. Andrew’s Cathedral Site Excavation Plan: Impact Zone
Figure 1.1 Aerial View of St. Andrew’s Cathedral Excavation Site.
Figure 1.2 Aerial View of Excavation Site, Salvage Phase.

Figure 1.3 Excavation Site, Salvage Phase.
Plates

Figure 1.4 Sri Lankan Coin circa 13th century.

Figure 1.5 Yuan Dynasty 10 Cash Coin circa 14th century.
Plates

Figure 1.6 Stoneware Vessel circa 14th century.
Figure 1.7 Stoneware "Mercury" Jar circa 14th century.
Plates

Figure 1.8 Stone Carving circa 14th century.

Figure 1.9 Carnelian and Glass Beads circa 14th century.
Figure 1.10 Celadon Bowl Yuan Dynasty circa 14th century.

Figure 1.11 Celadon and Stoneware Jarlets circa 14th century.
Figure 1.12 Military Regalia, Possibly Johor Volunteer Regiment.

Figure 1.13 Qing Bai Porcelain Lid circa 14th century.
Figure 1.14 The Former Adelphi Hotel Serving Ware.

Figure 1.15 Yuan Dynasty Blue & White circa 14th century.
Figure 1.16 Blue & White Bowl Base Yuan Dynasty circa 14th century.
Figure 1.17 Decorated Earthenware, Possibly Local Manufacture circa 14th century.
Figure 1.18 Mammal Bone.

Figure 1.19 Rifle Cartridge WW II Vintage.
Figure 1.20 Typical Soil Profile at St. Andrew’s Cathedral Site.

Figure 1.21 Education & Outreach: Student Volunteers.
Figure 1.22 Education & Outreach: Archaeology Workshop.

Figure 1.23 Media Interest: Disney Channel.