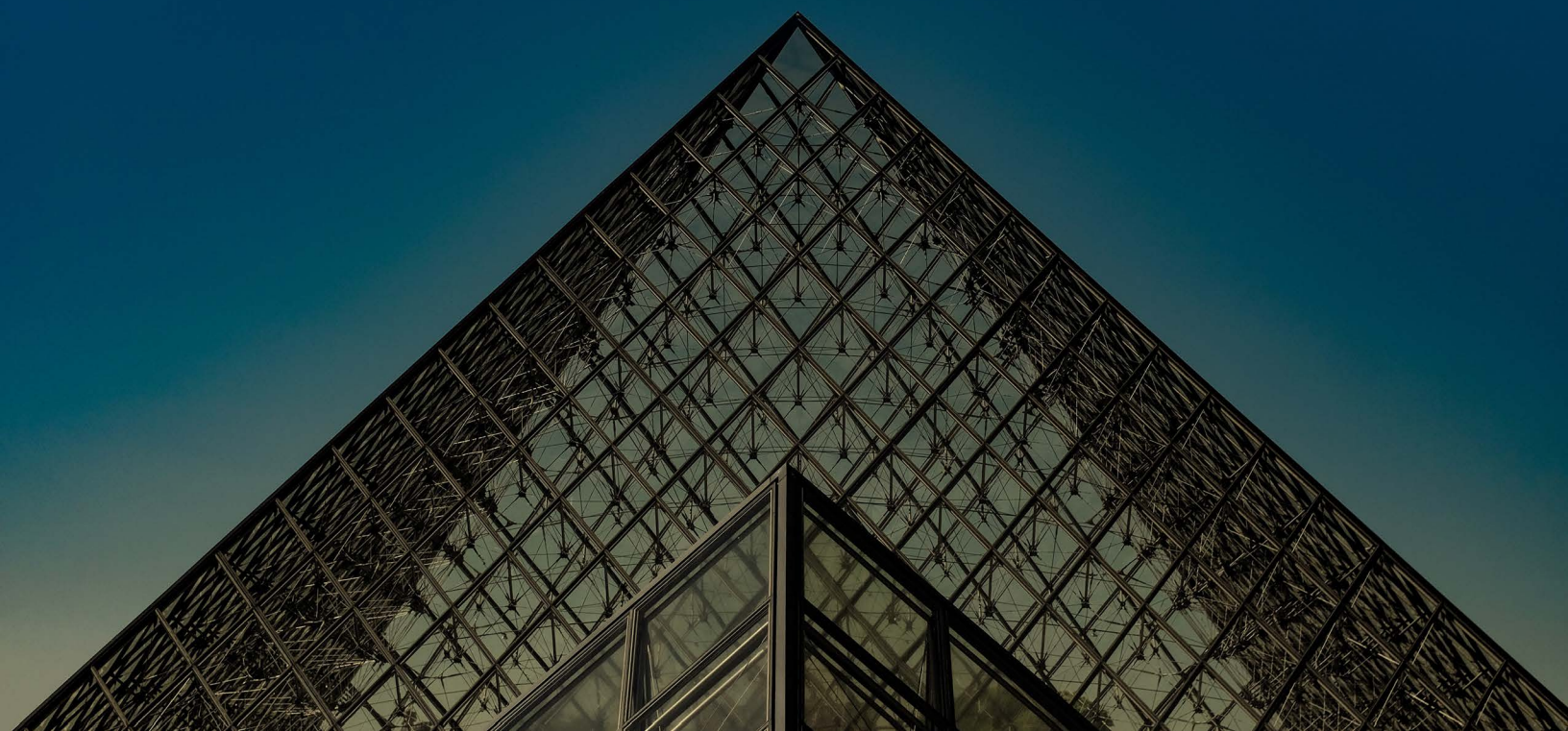




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Hands-on-humanities: an aspirational educational pathway for disadvantaged students in rural Victoria, Australia

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Keywords Humanities; object-based learning; archaeology; rural education

Abstract This paper presents the structure, challenges, and initial outcomes of the ongoing project “Engaging Antiquity in the Goulburn Valley,” a hands-on-humanities teaching and learning initiative focused on bridging the urban-rural opportunity and outcome gap evident on the Australian secondary education landscape. Research has confirmed that many students from Australian rural schools suffer multiple levels of disadvantage that affect their educational outcomes. Challenges faced by these students arise as a function of low socio-economic status, limited access to experienced teachers with the capacity to lead classes across a broad curriculum, depressed student and parental educational aspirations, and constraints inflicted by geographic isolation. Overcoming the educational division brought about by these difficulties is one that stands central to addressing wider issues of social cohesion. As this paper will argue, engagement with methods central to archaeology and museum learning can provide important opportunities for educational advancement as well as confidence and skills building. Initial evaluations of student surveys, and the observed reactions of student and teacher program participants, confirm not only the efficacy of this pedagogy but the thirst that exists in the sector for alternative means of knowledge transfer. Of particular note are the outcomes of this approach for students with additional education needs and those who struggle with text-based learning. The multi-layered text, visual and tactile oriented experiences, and the immersive environments of simulated archaeological fieldwork and museum visits, promote information retention and engagement.

About the Authors

Annelies Van de Ven is a post-doctoral researcher at the Université Catholique de Louvain. She is working to bridge the gap between object and text within archaeological collections at the University’s associated museum Musée L. Her previous research focused on nationalism in archaeology. Alongside her participation in the Goulburn Valley project, she is also a staff member on the joint Australian-Georgian Rabati field school.

Sharyn Volk was awarded her PhD at the University of Melbourne for her thesis on the function of ancient Egyptian and Nubian funerary figurines. Integral to this research was the development of a new classification model isolating all of the attributes carried by the figurines. In 2016, Sharyn founded The Goulburn Valley Project, establishing a connection between her expertise in Egyptology and her passion for rural education.

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The tyranny of distance

The Goulburn Valley is an area situated just over 200 kilometers, or 130 miles, from Melbourne, the capital city of the state of Victoria, Australia. Melbourne is home to approximately 5 million people and is the second-largest city in Australia. In contrast, the Goulburn Valley population totals approximately 160,000, comprising a regional city of 60,000 people, while 100,000 live in multiple smaller towns and on farms.¹

Compared to urban and suburban populations, inhabitants of regional, rural and remote (RRR) areas have traditionally been disadvantaged in their access to employment opportunities and therefore income, service provision of all types including specialist healthcare, and public transport with any speed or frequency of service. These types of problems are exacerbated in a country such as Australia, which for its geographic size is home to a relatively small population where people congregate in cities on the coastline. Resources are inevitably allocated to the areas of highest populace, which ensures the disadvantage suffered in rural areas is continually reinforced. These resources pertain to emergency services, healthcare and infrastructure, but also equally to education.

The Victorian Auditor-General, John Doyle, put these issues into stark relief in the 2014 report *Access to Education for Rural Students*. Doyle described the educational divide as “a persistent gap in achievement and outcomes between rural and metropolitan students.”² Reports such as this emphasize the many levels of disadvantage that students from Australian rural schools suffer and how these disadvantages affect their educational outcomes. Challenges these students face arise as a function of low socio-economic status, limited access to experienced teachers with the capacity to lead classes across a broad curriculum, depressed student and parental educational aspirations, and constraints inflicted by geographic isolation.³ The direct educational impacts of these issues are high truancy rates, failure to achieve national minimum standards, and low secondary school completion rates.⁴ Beyond the experiences of the students in secondary school, these factors also contribute to difficult higher education transitions as students not only deal with the changes associated with leaving home, but must adjust to the urban environment without their family and community support systems.⁵

Equally significant are the reports of the Mitchell Institute including *Educational Disadvantage and Regional and Rural Schools* (2014) and *Educational Opportunity in Australia* (2015) spearheaded by Professor Stephen Lamb. These education experts analyze the data from years of school research, considering milestone attainment across multiple skillsets. These metrics include literacy and numeracy, but equally social skills, emotional maturity and cognitive abilities. As such, their approach is more holistic, considering the wider developmental needs of the community beyond the aim of employment. In analyzing the factors that are common to successful educational as well as developmental outcomes, the 2015 report notes the importance of active student engagement and extra-curricular programs.⁶ These require additional resources as well as staff engagement that many of these schools cannot support at present.

In order to address this need, in late 2019, the Victorian state government announced the institution of a policy that will offer up to AUD 50,000 per suitably qualified teacher as a one-time payment to encourage relocation to rural schools.⁷ This is an attempt to bridge the

diminished educational achievements of rural students who, in their secondary school studies, are over 20% less likely than their urban peers to meet the requirements at each school year's education milestones.⁸ Teachers who chose to relocate are offered a further incentive of AUD 9,000 per year at the most in-need schools for an additional three years to encourage at least a short-term commitment. The results of this plan cannot be assessed until at least the expiration of the first three years. Even prior to its commencement, the teachers union emphasized the support required for teachers who already live and teach in these regions. Though government initiatives such as this one stem from a genuine acknowledgement of the issues, seeking to bridge the growing divide between rural and urban educational outcomes, they are still too often based in urban-oriented institutions and systems. This means that they are oriented towards needs as understood within an urban context, rather than seeking to support grass-roots initiatives within the rural community itself.

This is not a uniquely Australian problem, and similar issues have been described throughout the world, with each report responding to unique local circumstances.⁹ When compared to two of its commonwealth counterparts, Canada and New Zealand, the Australian situation appears to be particularly dire.¹⁰ However, comparative studies such as these also provide positive outcomes, supporting the idea that the problem can be successfully addressed given appropriate policies and structures. It is clear more work is necessary to ameliorate the conditions of education in rural Australia.

Our schools

The Goulburn Valley Project was framed in response to this challenge. In 2016, we launched the pilot project in Melbourne with the intention to bring archaeological collections and hands-on learning techniques to students in rural Victoria. The initial aim of the project was to test the potential of hands-on-humanities with a small group of rural students in order to examine how successfully it could address the effects of rural educational disadvantages on the ground. The project engages with ~300 students per year, split into groups of 15 to 30 students. The target audience is comprised of students in years 7 and 8, between ages 12 and 14 years old, with expansion activities for later years. We chose this age group to ensure that the project activities reinforce the existing curriculum for the state of Victoria where ancient history, and ancient Egypt in particular, are taught in these year levels. This is important to ensure collaboration and support of humanities teachers working at these schools.

The history and industry of this region of Australia are important to understand the project's context. The Goulburn Valley is home to several aboriginal groups including the Yorta Yorta people who have a long continuous tradition in the region. In the mid-19th century, the Valley became an important stop along the road between Melbourne and Sydney, leading to extensive European settlement in this area. The Murray and Goulburn rivers provide a reliable water source, which ensures the region's fertility and has resulted in its cultivation. The Goulburn Valley is known for its fruit and dairy farming, and its large fruit-canning factory. Many of our students come from families whose breadwinners work in these industries. Most recently, the area around the region's main town, Shepparton, has experienced an immigration boom, further diversifying the population and the student body.¹¹ Shepparton has been heralded as an example of successful multiculturalism but, tensions remain between communities, which impact school demographics.¹²

The five schools the Goulburn Valley Project works with are Shepparton High School, McGuire College, Mooroopna Secondary College, Kyabram Secondary College, and Numurkah Secondary College. They are all located within a 40 km radius, with the first three schools located within 7.5 km of one another. These are not the only schools in the area, but each adheres to our necessary criteria of being government schools (not independent or Catholic) with students in the bottom quartile of academic performance. Despite their geographic proximity and similarity in educational challenges, these schools have different demographics (Figure 1). McGuire College is the largest school with 653 students enrolled in 2019. It also has the highest number of English as a Second Language students, with 49% of students coming to the English school system from a different language background. Mooroopna has the highest aboriginal enrolment, with 18% of its 299 students identifying as indigenous. Shepparton High School falls between the two with 492 enrolled students in 2019, of which 37% are ESL and 8% indigenous. Traveling farther from Shepparton, the student bodies become less diverse. In each of the five schools, over 80% of the students are in the bottom or middle-bottom quartile of socio-educational advantage, taking into account their parents' educational history, income level, and stability. Each school is unique, and this data is extremely important in developing collaboration in the Goulburn Valley to avoid homogenizing the needs of all schools in the region.

| School | Enrolments | ESL Students | Indigenous Students | Socio-educational advantage in the bottom quartile |
|-----------------------------|------------|--------------|---------------------|--|
| Shepparton High School | 492 | 37% | 8% | 58% |
| McGuire College | 653 | 49% | 7% | 67% |
| Mooroopna Secondary College | 299 | 7% | 18% | 69% |
| Kyabram P-12 College | 527 | 6% | 7% | 49% |
| Numurkah Secondary College | 240 | 3% | 5% | 56% |

Figure 1. 2019 data for schools participating in the Goulburn Valley Project. Australian Curriculum Assessment and Reporting Authority.

Impacting three of the participant schools in our project—Shepparton High School, Mooroopna Secondary College, and McGuire Secondary College—is the establishment in 2020 of a ‘super school’ that will combine four of the schools in the region—the fourth being Wanganui Park Secondary College¹³—into a single huge school operating under the banner of Greater Shepparton Secondary College. The new college will have separate campuses for different year levels, and in terms of total secondary school students will be the largest in Victoria. The government argues that this new ‘super school’ will benefit the students by centralizing resources which could help address pressing issues of teaching and curriculum quality. Finally, the construction of new buildings would offer new infrastructure that could promote improved morale. Of course, infrastructure has an important role to play in the education of these students, but buildings are only a single aspect of the multi-faceted challenges related to rural disadvantage which must be addressed. Parents from the region have expressed a resistance to the new plan, which they feel has been imposed on them from above. Their main criticism

has been the failure of the new plan to respond to diversity across the four schools. Many of the students in these schools also camp with learning difficulties or non-literate family backgrounds, so there is a distinct fear that these special needs students will be lost in the 'super school' structure. This will change the situation in which we are teaching and we intend to adapt the project within these schools to be more challenge-focused, working primarily on literacy for special needs students and intercultural empathy.

The socio-economic disadvantage in this region directly maps onto educational disadvantage, and students in these schools perform substantially lower than the national average in reading, writing, spelling, grammar, and numeracy. This is made clear in the National Assessment Program Literacy and Numeracy (NAPLAN) results for each school. Under the auspices of the Council of Australian Governments the Education Council oversee the National Assessment Program (NAP) which is an annual assessment for all Australian students in years 3, 5, 7 and 9. Reading, writing, spelling, grammar and numeracy are tested at each of the nominated year levels at all schools at the same time every year.

For the purpose of comparative analysis between the schools that participate in the Goulburn Valley Project and the overall national NAPLAN results, the 2019 numbers provide source data. The year 7 cohort is particularly notable as the Project's primary participant group. Each test area for individual schools is compared to the Australian average, and described as either substantially above average, above average, close to average, below average, or substantially below average. Figure 2 summarizes the 2019 year 7 data for the five participant schools.¹⁴

| School | Reading | Writing | Spelling | Grammar | Numeracy |
|------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Shepparton High School | Substantially Below | Below | Below | Substantially Below | Substantially Below |
| McGuire College | Substantially Below | Below | Below | Below | Below |
| Mooroopna Secondary College | Substantially Below | Substantially Below | Substantially Below | Substantially Below | Substantially Below |
| Kyabram P-12 College | Below | Below | Substantially Below | Below | Below |
| Numurkah Secondary College | Below | Below | Substantially Below | Below | Substantially Below |

Figure 2. 2019 year 7 Naplan results for schools participating in the Goulburn Valley Project compared with all Australian secondary schools. Australian Curriculum Assessment and Reporting Authority.

The efficacy and impact on students and teachers of standardized testing like NAPLAN is the subject of ongoing debate.¹⁵ In the absence of better global information however, it provides data illustrating the challenges faced by the schools that participate in our project. The results achieved by each school across the five measured skills areas are all either below or substantially below the total Australian student cohort at year 7 level. Even when measured

against schools with similar students, the reading and writing outcomes for the year 7 students are still below the cohort median. Most importantly, the students graduating from these schools will not be competing for places in tertiary institutions or employment with only those who were educated in schools considered similar to their own, or in their own geographic regions, but rather with an age cohort. The inequality in opportunity is therefore perpetuated.

The museum experience as a model

Government and school leadership have identified the gaps, and efforts are in place to address these issues. Mandatory reading time is prominent in many schools to help increase literacy, and additional government funding is allocated to school STEM initiatives.¹⁶ Funding STEM (Science, Technology, Engineering, and Math) so that it can be taught in more engaging ways through field trips, fairs, and live demonstrations can enhance STEM's appeal to students. These initiatives are considered valuable investments to improve Australian communities' employability and productivity.¹⁷ These efforts have great potential for improving student skills, yet fail to address the issue holistically.¹⁸ To educate citizens for the future, it is important that equal weight is given to other aspects of the curriculum currently allocated a secondary role.

Important skills like creativity, self-reflection, and empathy cannot be built up solely through scientific study, they must be supported by wider considerations of history, social interactions, ethics, etc.¹⁹ This is where humanities learning demonstrates great value. It has the potential to teach the same problem-solving and critical thinking skills but with more emphasis on context and communication. Both STEM and HASS (Humanities and Social Sciences) disciplines benefit from inquiry-based learning strategies. By connecting both poles to wider aims and missions of the school curriculum, a more integrated approach can be developed that benefits all students, valuing their diverse interests and skills.²⁰

A particularly powerful experience that students can have across both STEM and HASS learning is the museum visit. Museums are inherently experiential and thus have the potential to bring learning to life. This is true for science museums, that have been traditionally seen to be more child-friendly spaces due to their focus on learning and experimentation.²¹ However, art, culture and history museums have also become increasingly family-oriented, recognizing their own educational potential and the value of engagement with a broad audience. Lessons in any discipline held in museum spaces using their collections and displays are memorable and have the potential to motivate and enthuse students who struggle with traditional classroom-based learning strategies. Museum visits allow students to engage with material in new ways, promoting exploration that is visual, kinaesthetic, and tactile while promoting civic skills and values.²²

However, museum learning is not always integrated into school curriculum, and barriers to visiting museums exist. Museums are discussed as community resources,²³ but they tend to be familiar spaces for a small segment of the population. Students from lower socio-economic backgrounds and those living in rural areas often have less experience in museum environments and may feel out of place in a museum setting. It is important to buttress museum visitation with material that prepares students for their visit. The Goulburn Valley Project attempts to make museum spaces feel familiar by bringing the museum to the students, and by adapting the museum model to student needs. The Project uses replicas,

everyday objects, and de-accessioned artefacts from the University of Melbourne collections in its activities, ensuring a positive hands-on learning experience in the classroom prior to visiting a museum space. (Figure 3) Students are invited to form their own narratives around collections and to explore their curriculum through the framework of object-based learning, which aims to facilitate deeper learning through direct access to materials.²⁴



Figure 3. Year 7 students from Numurkah developing typologies of everyday objects. Photo: Rhonda Doyle Photography.

The power of object-based learning across all levels of education is well understood.²⁵ This Project has expanded traditional object-based learning strategies to develop more co-creative museum-building activities. This enables a multi-sensory strategy, combining observational activity with an audio element to reinforce the visual and tactile information that comes through object-manipulation. Associating words with tangible objects can elucidate concepts that students with low literacy challenges often find difficult to understand.²⁶ The Project also sought to discover the degree of autonomy students could demonstrate when exposed to an interactive activity that could be undertaken independently.

The Goulburn Valley Project developed the “Tomb in a Box” teaching tool in response to these aims, employing technology from the London-based firm Museum in a Box. The box exterior is decorated with images of the cliffs in the Valley of the Kings, and the interior decorated with typical ancient Egyptian tomb wall paintings. The box contains a 3D printed pot and sarcophagus, a full set of miniature canopic jars, replicas of figurines of Osiris, Anubis, Ma’at and Horus, a shabti, and an illustrated funerary text printed on papyrus. On the base of each object is a sticker embedded with an audio file. When the objects are placed on a small speaker box, a voice file is activated, telling the students briefly about the purpose of the object. A group of multi-layered questions requiring both object observation and attention to audio information was formulated for each object. This provides an assessable guided visit to the “Tomb in a Box” museum. A worksheet is framed through the eyes of a young Australian who wrote letters while travelling to Egypt with Flinders Petrie.²⁷

Testing revealed that the box could be used in various modes at different year levels. At year 7 level the box worked better as a tool employed in a directed teaching model because some students found simultaneously observing, listening, and composing a written response to questions very challenging. The ability to manipulate the objects, have a visual context for them through the box itself, and a narrative through the voice files proved a unique learning experience that encouraged questions and discussion. At year 9, however, the potential for self-directed learning was evidenced. Students could build upon their knowledge from previous years to further deepen their understanding and skills. In this format, students worked more collaboratively, and demonstrated an ability to listen, read, comprehend, and write within a confined timeframe.

Following the success of the “Tomb in a Box,” the Goulburn Valley Project invited students to create their own “Goulburn Valley in a Box.” We wanted to discover what stories students would like to tell through their own objects, so as a team, the year 9s from our participant schools nominated their objects: Bessie the friesian milking cow representing the importance of the dairy industry to the region, a decorated “Art Cow” reflecting an outdoor cultural project for which the region has become famous, a John Deere tractor exemplifying the machinery on local farms, an Australian Football League ball synonymous with a game that brings country communities together every weekend during the winter season, a Southern 80 speedboat which is a miniature of a boat used in a famous race held every summer along the Murray river, a jar of Shepparton Preserving Company fruit processed by a company central to the economic strength of the regional city of Shepparton, a rose reflecting the importance of a memorial garden in one of the towns we visit, a snake representing a dreamtime creation story explaining the formation of the Murray River, a platypus which is an Australian mammal found in the local waterways, and a long-necked turtle which is a Yorta Yorta totem. These objects are housed in a box decorated on the outside with imagery of the Goulburn Valley landscape, and on the inside with Australian native animals. Each object carries a voice file describing its significance to the students, giving students the opportunity to act as experts and curators in their own exhibition of local culture. This exercise also helps to give context to the museum experience, as students come to understand the connections between the analysis of archaeological material and their own engagement with objects and symbols in their daily lives. They must think about how to communicate these experiences to others who come from different backgrounds, a task that requires them to draw on their developing skills in cross-cultural empathy and critical thinking.

In 2020, the box will be shared in Egypt, Sudan, and the UK.²⁸ The students who learn about the Goulburn Valley from the box will be asked to share their own stories and nominate objects they would like to feature in boxes that tell their stories. The Goulburn Valley Project will work with the international students to bring these boxes to life as we continue to extend the reach of the “Place in a Box” project, promoting co-creation and intercultural dialogue through the museum model.

Archaeological activities

The second model the Goulburn Valley Project adopts is that of the archaeological team, developing teamwork and specialization skills in our participant students. Like the museum, the framework of archaeology, allows integrating elements of STEM and HASS into the learning process, highlighting their mutual importance to developing key skills and aptitudes like

problem-solving and communication. These activities are collaborative, inquiry-based, interdisciplinary, and relevant to the students themselves. Students are introduced to scientific methods for gathering and analyzing data and interpreting it. These methods come from different fields, allowing students to explore a variety of specializations. Whatever particular method is being explored in an activity, an effort is made to connect it to the experiences of the students themselves, and the challenges that their community faces.²⁹

We start from the Victorian humanities curriculum provided in years 7 and 8 that is oriented towards studying human communities across a chronological span of 60,000 BCE to 650 CE. The civilizations nominated for investigation in the curriculum are Australia, China, Egypt, Greece, India and Rome. Concepts the students learn include chronological sequencing, using historical sources as evidence, identification of continuity and change, and analysis of cause and effect including overall historical significance.

To address these curriculum requirements, the Goulburn Valley Project takes a multi-step process. One of the first concepts we consider in each session is the importance of context. Our tool of exploration is a replica of a Late Period (664–332BCE) object from The Louvre Museum collection: a life-size image of Bastet, an Egyptian protective goddess, in her form as a seated cat. We ask students to interpret what the statue's meaning might be if she was found in the ruins of an Egyptian temple versus in a child's bedroom. During our object handling session, Bastet is a favorite of students because she is easily understood within their own life context. She is an excellent catalyst for exploring potential meanings beyond the everyday. Images of locations and objects help students to piece the narrative together for themselves and to assist in highlighting the basic task of an archaeologist, the relational interpretation of material to better understand the past.



Figure 4. Year 8 students from Numurkah carrying out pottery reconstruction during their Melbourne Visit. Photo: Sharyn Volk.

Students are introduced to the work of a field archaeologist as a conduit to explore how objects might leave their site of original deposition. Alongside the concept of context, conversation considers what types of objects might be found. We explore the concept of classification and the knowledge that can be inferred from grouping objects into types. A hands-on activity involves distributing a bag of everyday objects containing items such as lids, buttons, or shells to each student. Students are asked to arrange the objects in a way that helps interpret something about their histories. We help guide their reflections, but ultimately allow them interpretive authority. Throughout the activity, students transition from categorization to self-expression, and they are provided with an opportunity to tell a story through hands-on evidence-based analysis.

The pottery analysis activity allows students to access “real” objects and to make meaningful connections with them. Pottery, especially fragments, are often relegated to museum storage. The Goulburn Valley Project has access to a teaching collection obtained as part of a series of Australian-Middle Eastern excavations undertaken in the 1980s. The students are asked to look at these objects, describe their shape, size and appearance in order to consider their original function, format, and excavation context. Students are invited to compare their vessel to shape and decoration typologies, fill in an information sheet and, if desired, draw their interpretation of the whole object. The group then gathers to share their stories, allowing each to develop a theory about the potsherd, explain the evidence behind it, and share their hypotheses with peers. Discussions can then be prompted through student questions: How did these objects come here? What was their significance to the people of the past? And why might they be important to us in the present?

The final archaeological activity is a simulated excavation for year 8 students. The Goulburn Valley Project constructs three mock excavation sites scattered with a rich selection of objects including shells, decorated potsherds and plaster tablets, and replica animal and human bones. Each group records the location of their objects within the gridlines on their site, and sorts them according to type. Cooperation with other site teams is required to ensure each group has all of the pieces required to reconstruct a complete pot and a plaster tablet. Once these tasks are complete, the groups gather to share their findings. The year 8 groups come from different schools so rather than working with their regular classmates students are given the opportunity to work in a team environment with people they have only met that day. During this activity, students explore the scientific process first-hand. By scaffolding each activity through the skills gained in previous sessions, the Project aims to reinforce a critical reflex in the students that combines an analytical and synthesizing approach to learning. This is not an exercise in training a new generation of archaeologists, but rather in helping students gain essential skills that are cross-disciplinary and transferable.

Examining outcomes and challenges

Evaluation is vital to the Goulburn Valley Project, and a combination of formal and informal techniques to solicit feedback and improve the work is used. Participating students are invited to complete a survey that includes questions asking whether learning with objects has increased their interest in studying history, and asking about the amount of information they could remember. Consolidated results from year 7 responses for the last three years of project delivery evidence 71% of students acknowledging an increased interest in the subject area, and 78% of the cohort recognizing higher levels of information retention. Students can also

elaborate on their experiences, and while many students leave this section blank or use it to write thank you messages, some students express how memorable the experience was, particularly pointing to the hands-on learning aspect and to the autonomy they had to interpret the material. Informal debriefs with teachers involved in the project similarly highlighted increased engagement by certain students in the classroom during the activities, particularly remarking on a change in attitude from students with learning difficulties.

The hands-on activities facilitate skill level testing in an engaging environment that is not obviously recognizable by participants during the practice. For example, a card matching game in which pairs of students must match a descriptive card against an image of what is described comprise text and images of ancient Egyptian gods and goddesses, but the same approach works equally within different subject environments. Assessment of this activity, and discussion with classroom teachers, suggests the observational skills of students who struggle with literacy skills are in many instances sharper than those who are very capable in gleaning information solely from text. The object cards completed by students as an aspect of the potsherd exercise provide another measure of literacy and comprehension levels. Filling the fields on the cards requires an understanding of a question in relation to the sherd, and the formulation and writing of a response. Analysis of completed cards across and between year levels and at different schools is currently ongoing.

It is essential that the Goulburn Valley Project develops deep trust and collaboration with teachers. Teachers ensure the lasting impact of the Project's short sessions and help guide the Project in its engagement with the communities that schools serve. In their literature review on the staffing of rural, remote and isolated schools in Australia, Downes and Roberts note these schools are more difficult to staff, experience higher staff turnover rates, are staffed by inexperienced graduates, have teachers working outside their areas of expertise, and have staff who are more transient than their metropolitan counterparts.³⁰ The final report following Halsey's review into regional, rural and remote (RRR) education in Australia states that despite government efforts over decades, "attracting and retaining teachers for RRR schools continues to be one of the most persistent challenges on the education agenda."³¹ It is further suggested that teacher graduates see regional, rural and remote schools as a good place to commence their career, but not a place for long-term commitment.

The Goulburn Valley Project team itself faces challenges. Continuity is growing increasingly challenging as education budgets are cut. To date, the Project has worked with The University of Melbourne's funding support and collections, but these sources focus on short-term projects evaluated on a year-to-year basis rather than on long-term engagement.

Conclusion

After four years working with students from these schools, the Goulburn Valley Project continues to face new challenges. The Project continually refines and updates the teaching and learning toolbox to ensure participant satisfaction, including students, teachers, school administrators, and the wider community. The years of project development provide an excellent platform from which to move forward. The first cohort of year 7s will be completing their secondary schooling in 2021. Evaluation of their subject selections in 2020 and 2021 can provide a measure of project impact, although this outcome will also be affected by many of the challenges already addressed in this paper. As each cohort works through their final

years of schooling, where possible the Project will continue to follow through progress in their life beyond secondary school, particularly if they progress to tertiary education.

Rural schools suffer from unique disadvantages not shared by their urban peers, and this is particularly true for students attending under-resourced government schools. To address these inequalities, it is necessary to develop projects that are specifically designed and developed for the needs of these communities, and in collaboration with teaching staff and the students themselves. Museum learning strategies can help to address these issues but must be presented in a way that is relevant and recognizable, as students from rural and disadvantaged backgrounds often have little personal experience in museum environments. The Goulburn Valley Project posits that a successful strategy for increasing student engagement is through integrating archaeological practice. Archaeology can provide an ideal model because it is hands-on and collaborative, giving students the agency to develop their own skills and knowledge. It is only through this co-creative process that sustainable changes can be made within student self-perception.

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Notes

¹ Both “rural” and “regional” refer to locations outside urban centers that have populations of 100,000 or more, which for Victoria means locations outside Melbourne and Geelong. We have chosen to use “rural” consistently in this study for the sake of clarity and accordance with international terminology.

² John Doyle, *Access to Education for Rural Students* (Melbourne: VAGO, 2014), vii.

³ Peter Karmel, *Schools in Australia: Report of the Interim Committee of the Australian Schools Commission* (Canberra: Australian Government Publishing Service, 1973). Doyle *Access to Education*, 23. Stephen Lamb, Sarah Glover and Anne Walstab. “Educational disadvantage and regional and rural schools” (paper presented at the annual conference of the Australian Council for Educational Research, Adelaide, August 3-5, 2014), 65.

⁴ Doyle *Access to Education*, 11-17. Lamb et al., “Educational disadvantage”, 66-68.

⁵ Doyle *Access to Education*, 18. Lamb et al. “Educational disadvantage”, 68.

⁶ Stephen Lamb, Jen Jackson, Anne Walstab and Shuyan Huo. *Educational opportunity in Australia 2015: Who succeeds and who misses out* (Melbourne: Mitchell Institute, 2015), 92.

⁷ Victoria State Government, *Rural and regional Victoria funding*, last modified September 5, 2019. <https://www.education.vic.gov.au/about/educationstate/Pages/rural-and-regional-educational-reform.aspx>.

⁸ Lamb et al. *Educational opportunity*, iii.

⁹ Seung-II Na and Sang-Ki Min, “Factors Affecting the Educational Gaps between Rural and Urban Areas,” *Journal of Agricultural Education and Human Resource Development* 43 (2011). Kiatanatha Lounkaew, “Explaining urban–rural differences in educational achievement in Thailand: Evidence from PISA literacy data,” *Economics of Education Review* 37 (2013). Chiara Amini and Eugene Nivorozhkin, “The urban–rural divide in educational outcomes: Evidence from Russia,” *International Journal of Educational Development* 44 (2015). Dandan Zhang, Xin Li and Jinjun Xue, “Education Inequality between Rural and Urban Areas of the People's Republic of China, Migrants' Children Education, and Some Implications,” *Asian Development Review* 32/1 (2015).

¹⁰ Kevin Sullivan, Andrew McConney and Laura B. Perry “A Comparison of Rural Educational Disadvantage in Australia, Canada, and New Zealand,” *Sage OPEN* 8/4 (2018).

¹¹ Some of the largest of these communities come from Turkey, Sudan, Sri Lanka, Samoa, India, Italy, Iraq, the Philippines, Congo, China, Albania and Afghanistan. “Community Profiles,” Ethnic Council of Shepparton and District, accessed February 27, 2020, <https://ethniccouncilshepparton.com.au/?cat=44>.

¹² Anthony Moran and Mark Mallman, *Understanding Social Cohesion in Shepparton and Mildura: Final Report* (Melbourne: La Trobe University, 2015), 13-19.

¹³ Wanganui was not included in our project as its students are not in the bottom quartile of academic performance and less than half of the students are in the bottom socio-economic quartile.

¹⁴ The data for this table comes from www.myschool.edu.au, for each school NAPLAN 2018 results in numbers compared to all Australian schools.

¹⁵ Pauline Roberts, Lennie Barblett and Ken Robinson, "Early years teachers' perspectives on the effects of NAPLAN on stakeholder wellbeing and the impact on early years pedagogy and curriculum," *Australasian Journal of Early Childhood* 44/3 (2019). Katharine Swain, Donna Pendergast and Joy Cumming, "Student experiences of NAPLAN: Sharing insights from two school sites," *Australian Educational Researcher* 45/3 (2018).

¹⁶ Australian Government, "Support for Science, Technology, Engineering and Mathematics (STEM)," last modified January 17, 2020, <https://www.education.gov.au/support-science-technology-engineering-and-mathematics>.

¹⁷ Gitta Siekman and Patrick Korbel, *Defining 'STEM' skills: review and synthesis of the literature* (Adelaide: NCVET, 2016).

¹⁸ Martin Braund and Michael J. Reiss, "The 'Great Divide': How the Arts Contribute to Science and Science Education," *Canadian Journal of Science Mathematics and Technology Education* 19 (2019).

¹⁹ Kate de Medeiros, "The "Other" in Ourselves: Exploring the Educational Power of the Humanities and Arts," *Gerontology & Geriatrics Education* 37/3 (2016). Deborah Green and Deborah Price, *Making Humanities and Social Sciences Come Alive: Early Years and Primary Education* (Cambridge: Cambridge University Press, 2019).

²⁰ Patrick Blessinger and John M. Carfora, *Inquiry-Based Learning for Arts, Humanities, and Social Sciences Programs* (Bingley: Emerald Publishing, 2014).

²¹ Eilean Hooper-Greenhill and Theano Moussouri, *Researching learning in museums and galleries 1990–1999: A bibliographic review* (Leicester: Research Centre for Museums and Galleries, 2001).

²² Margaret Salazar-Porzio, "The ecology of arts and humanities education: Bridging the worlds of universities and museums," *Arts and Humanities in Higher Education* 14/3 (2015).

²³ Green and Price, *Making Humanities...*, 440-446.

²⁴ Helen J. Chatterjee, "Staying Essential: Articulating the Value of Object Based Learning," *University Museums and Collections Journal* 1(2008).

²⁵ Helen J. Chatterjee and Leonie Hannan, *Engaging the Senses: Object-based learning in higher education* (Farnham: Ashgate, 2015).
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²⁶ Joanne Larson and Jackie Marsh, *Making Literacy Real: Theories and Practices for Learning and Teaching* (London: Sage Publications, 2015).

²⁷ Christine Elias, *Discovering Egypt: Egyptian antiquities at the University of Melbourne*, Masters Thesis, The University of Melbourne, 2010.

²⁸ This will be done in collaboration with colleagues Heba al-Gawad at the University of Durham, Amanda Ford Spora at University College London, Joyce Tyldesley and Nicky Nielsen, both at the University of Manchester.

²⁹ Geralyn Ducady, Mariani Lefas-Tetenes, Sarah Sharpe and Miriam A.W. Rothenberg, "Archaeology and the Common Core: Using Objects and Methodology to Teach Twenty-First-Century Skills in Middle School," *Advances in Archaeological Practice* 4/4 (2016).

³⁰ Natalie Downes and Philip Roberts, "Revisiting the schoolhouse: A literature review on staffing rural, remote and isolated schools in Australia 2004-2016," *Australian and International Journal of Rural Education* 28/1(2018): 33.

³¹ John Halsey, *Independent Review into Regional, Rural and Remote Education* (Canberra: Commonwealth of Australia, 2018), 38.