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Front cover: Photo of the Alexander tetradrachm, no. 68 (see article of Lloyd Taylor Fig 1 page 52)

NUMISMATIC ASSOCIATION OF AUSTRALIA INC

President's Report

With COVID-19 now endemic, the Association has not been able to hold a conference because of the upsurge this year of the virus Australia-wide, but nevertheless the NAA has continued to function with an upgraded website and the publication of this double volume JNAA31, which is available for free download at the NAA website. We plan to hold a conference next year in Adelaide, 19 – 20th October 2023, hosted by the Numismatic Society of South Australia.

I am delighted to announce the award of the Ray Jewell Silver Medal to our Managing Editor, Associate Professor Gillan Davis for his services to the NAA, and his numismatic work both in Australia and overseas for which he has an international reputation. Congratulations Gil from all of us.

The NAA continues to enjoy sponsorship at a sustainable level, with Noble Numismatics (Gold), Coinworks, Downies (Silver), Coins & Collectables Victoria, Drake Sterling, Mowbray Collectables, Sterling & Currency and Vintage Coins & Banknotes (Bronze) all contributing to ensure the Association's continued success. Membership is being maintained, and with the contributions by sponsors and members, the Association can function in these difficult times.

The NAA now has a new Secretary, Bridget McClean, and a new address in Nunawading, Victoria. This is convenient as the NAA is incorporated in Victoria. Much time has been spent changing bank signatories and updating Consumer Affairs Victoria; nothing happens quickly these days!

The Numismatic Association of Australia now has a functioning PayPal account linked to president@numismatics.org.au. This is very convenient for payments coming from overseas and avoids most international bank fees. Like with banking, setting up a PayPal account is not a five-minute exercise, but well worthwhile.

I am impressed with the considerable work our Managing Editor Gil Davis has put into this volume notwithstanding his being extraordinarily busy transferring between universities and setting up new programmes at the Australian Catholic University. Also, I am grateful to Barrie Newman for his on-going work in getting the journal set up and printed, taking on the tasks of both layout and copy editor.

Council continues to meet by ZOOM, hosted by David Galt at Mowbray Collectables.

Finally, the Association cannot function without the dedication of its secretary and its treasurer (Lyn Bloom); thank you both Bridget and Lyn.

Professor Walter R. Bloom
President, NAA
www.numismatics.org.au
3rd August 2022

Editor's note

This volume has been a long time in the making. Usually, an issue is based around the NAA annual conference, but COVID-19 made that impossible. More importantly, as the peak body for numismatics in the country, we are focussed on making each volume wide ranging, interesting and impactful. So, we waited on the completion of a couple of key contributions and have brought out a combined two-year issue which I have dubbed 'the professors' volume' on account of the academic attainment of most of the authors. I trust you will agree that the results justify the decision, because here we offer a splendid collection of eleven articles on an eclectic range of topics with some of the best numismatic analysis and writing I have read. Personally, I have learnt a lot, and I expect that you will too. The collection is rounded out by an obituary by NAA stalwart Peter Lane of the late Maurice B Keain, a real character on the Australian scene.

There are two articles on Australian topics. Vincent Verheyen offers a forensic scrutiny of 'proofs' and 'specimens' from the Melbourne and Perth mints issued in just two years, 1955 and 1956 and seeks to differentiate between them. Walter Bloom provides an interesting study of Western Australian numismatic medallions and badges with an emphasis on the Castellorizian Brotherhood which represented the émigrés from that Greek island.

Lloyd Taylor gives us a Hellenistic trilogy which is a tour de force in numismatic analysis. He starts with a brief but compelling argument correcting one of Hersh's additions to Price's Alexander typology showing that it was already in the corpus. Next, he reattributes Macedonian imperial coinage attributed to Berytos to Byblos. Finally, he shows that an issue of tetradrachms struck in the name of Philip III was in fact a posthumous issue of Seleukos.

There are four articles on a Roman theme:

- Bruce Marshall moves us into the turbulent period of the late Roman Republic with a study of 'labels' on a small number of denarii which he contends fed into the contemporary political discourse.
- Graeme Stephens and John McDonald offer us something unusual and valuable. They document and analyse an unpublished hoard of fourth and fifth centuries AD Roman coins and local imitations from Sri Lanka.
- Andrew Chugg explores the veracity of commemorative medallions of Antinous, paramour of the emperor Hadrian who was deified after his death in the Nile, arguing that there are ways of distinguishing between genuine and fake examples.
- John Melville-Jones offers us a magnificent work listing the names of Roman coins as used by the Romans themselves and sometimes just by modern numismatists.

Written in John's inimitable style, this is an invaluable reference for collectors, students and scholars.

The next article by Emy Kim and Cristiana Zaccagnino takes us into the fascinating world of a numismatic collection of some 600 Greek and Roman coins housed at Queen's University in Canada that is being used in teaching and research. They show just how valuable coins can be when treated as artefacts used to inform historical and scientific understanding. This represents a welcome trend in modern scholarship to integrate numismatics into cross-disciplinary studies.

Finally, we publish a long autobiographical article by Maria Caltabiano. This is justified by the profound impact which she has made on numismatics in a lifetime as professor of numismatics at the University of Messina in Sicily. Along the way, she describes many of her projects with a particularly fascinating exposition of an example of iconic programmatic minting in late fifth century BC Kamarina in the period of the 'signing masters' – some of the most exquisite ancient coinage ever struck. Sadly, we tend not to know enough about numismatics in early Europe, and this article goes some way towards filling the gap.

I sincerely thank the many diligent anonymous reviewers who have done so much to improve the papers. Likewise, I thank the members of the editorial board who stand ready and willing to help when called upon, and John Melville-Jones who happily proofreads the articles. Above all, I pay tribute to Barrie Newman without whose tireless efforts across the years, these volumes would not see the light of day.

Associate Professor Gil Davis
Managing Editor

Editorial Board

Articles must comprise original research on numismatic material including but not limited to Australasian numismatics (coins, tokens, medals, banknotes) or ancient or mediaeval numismatics. Manuscripts can be emailed to any member of the Editorial Board in your area of research, along with a copy to the Managing Editor.

Coins as teaching tools: the integration of numismatics and conservation

Emy Kim and Cristiana Zaccagnino

Abstract

The Department of Classics and the Master of Art Conservation program at Queen's University at Kingston own the Diniacopoulos Collection, a diverse assemblage of unsorted artefacts which includes more than 600 Greek and Roman coins. What makes this collection unique is that it does not belong to a museum, and it was acquired in 2001 with an educational purpose: the ancient artefacts are to be used as teaching tools for Art Conservation and Classics students. The collaboration between the two programs results in a crucial formative experience, since students become acquainted with the principles and methods of both disciplines.

Keywords

[Art conservation] [Archaeometry] [Coin collections] [Experiential learning]

Dedicated courses in ancient numismatics are almost non-existent in North American university curricula, despite academic interest and the availability of coin collections in several North American university museums.[1] Coins are frequently shown in courses of classical art and history as illustrations of the iconography of statue types, layout of monuments, and portraits and titles of ancient rulers. Coin iconography is indeed a dynamic and active vehicle of communication.[2] However, little detailed consideration tends to be given to the technical aspects of coin production and the purchasing power of the denominations. Even less attention is paid to their conservation and the treatments needed to stop deterioration. In an effort to bridge these gaps in the study of ancient coins, the Department of Classics and the Master of Art Conservation Program at Queen's University (Kingston, Ontario) have been training their respective students to collaborate across disciplines. By broadening students' awareness about the limitations of traditional fields of learning, they gain new insights into Ancient Numismatics.

The cornerstone of this novel collaboration at Queen's University is the accessibility of the Diniacopoulos Collection. The Department of Classics and the Master of Art Conservation program acquired a portion of the Diniacopoulos collection in 2001.[3] This collection is unique in that it is accessible to undergraduate and graduate students

1 See for example the Yale University Art Gallery, which includes a Numismatics collection. It is possible to search the collection online: http://artgallery.yale.edu/coins-and-medals.

2 Krmnicek, Elkins 2014.

3 Spirydowicz 2006, 303.

and that it is a diverse assemblage of unsorted artifacts. It includes Egyptian alabaster vessels, Luristan bronzes, Athenian black- and red-figure vases, Tanagra figurines, Islamic pottery, and more than 600 Greek and Roman coins.[4] The artefacts are often fragmentary and sometimes in very poor condition and lack information about their original contexts or prior treatments. The ancient coins arrived in a variety of states—some previously restored and others left with heavy archaeological and post-excavation encrustations. The untreated state of many of the coins has been an especially fortunate situation for Art Conservation graduate students, who have the unique opportunity to discover archaeological and atmospheric corrosion structures.

Diniacopoulos artefacts are housed in the conservation laboratory space, making them immediately available for study. Several North American University museums own coin collections, which may also be used as teaching tools, but in the majority of cases, students do not have direct access to the artefacts. Oftentimes they are on display in cases or preserved in the museums' storerooms, which are not always easily accessible. Therefore, handling and working with coins are not generally an option for students.

The Diniacopoulos Collection, like many collections of antiquities, has an unclear history, as its creation did not follow modern legal and ethical standards. Regretfully, the provenance of its pieces is undocumented, as the Diniacopoulos family was little concerned with this information. Therefore, graduate students in the Department of Classics and Master of Art Conservation program have been documenting, examining, treating, and sharing information about collection objects as a part of their university studies.

Background of the Diniacopoulos Collection

Vikentios 'Vincent' Diniacopoulos was born to Greek parents in 1886 and spent his life gathering, restoring, and selling ancient artefacts and paintings. In the early 1920s, while in Egypt, he met Olga Nicolas, a woman from the local Egyptian community. The couple married in 1926 and moved to France. There, in the south of the country, they ran an art gallery called La Ciotat.[5] In 1951 the couple immigrated to Canada, to avoid having their son Denis drafted into the army because of the growing tensions between France and Algeria. Furthermore, the art market had been severely impacted by World War II.[6] In the early 1950s they settled in Montreal, and they tried to find a home for their antiquities that had been shipped to Canada in crates from storage facilities in France, Egypt, and Syria.[7] Their collection was a reflection of their ethnic and geographic origins, as well as the different countries they lived in. It was housed and

4 Spirydowicz 2006, 303.
5 Epstein 2004, 19f; Blumer 2017, 12ff.
6 Epstein 2004, 20; Blumer 2017, 21f.
7 Epstein 2004, 20; Blumer 2017, 29. The Egyptian government, however, did not allow the Diniacopoulos to remove several artefacts which were left in Cairo.

displayed in the Valleyfield Seminary until 1965.[8] In the same year, the Gérard-Filion school in Chambly hosted an exhibition of artefacts of the collection from the ancient Near East, Egypt, and Greece.[9]

In 1956 the Diniacopouloses opened their art gallery *Ars Classica* in Montreal's art district. The gallery also displayed modern Canadian art. After Vincent's death in 1967, Olga and her son, Denis, maintained the gallery until 1969, when it was closed.[10] The artefacts that Olga did not sell after the death of her husband were moved to her own home, where they were stored until the late 1990s. Artefacts were hoarded throughout the house: 'fragments of Greek vases were strewn in fruit baskets just above a toilet', 'silver coins sat in cookie tins', and 'a three-thousand year old Egyptian sarcophagus leaned against the washing machine.'[11]

After the death of her only child, Denis, Olga became concerned about the destiny of the collection. Even though she was at first reluctant to part with her collection, she accepted the idea of dispersing it. With the help of Concordia University in Montreal, where Denis was professor until his retirement in 1995, the collection was sold to different private and public institutions. This sale created an endowment that finances 10 scholarships per year.[12] Queen's was among the public institutions that acquired pieces from the collection.

The collection was acquired by Queen's University with an educational purpose: the ancient artefacts had to be used as a teaching tool for students from Classics and Art Conservation. The Master of Art Conservation graduate program is the only one of its kind in Canada; thus, there is an opportune circumstance in which to advance numismatics research through the alliance of two specialist fields.

Since 2016, undergraduate and graduate students from Classics began to document the coins in the artefact conservation labs, where they are stored. The coins needed to be inventoried, as many were bundled together in large plastic bags. They were sorted into separate paper envelopes and a unique inventory for coins was created using an acronym, 'DN', for Diniacopoulos Numismatics. Information collected on each coin includes weight, diameter, identification of types and mints. Classics students consulted

8 Epstein 2004, 22; Blumer 2017, 32ff.
9 Blumer 2017, 37.
10 Epstein 2004, 20f; Blumer 2017, 38ff.
11 Epstein 2004, 18; Blumer 2017, 47 quoting Epstein.
12 Blumer 2017, 54. Concordia University has digitised documents from the Diniacopoulos's fonds (P/174). They are accessible at the following link: https://concordia.accesstomemory.org/vincent-and-olga-diniacopoulos-fonds

numismatic texts and online databases, such as, the *Sylloge Nummorum Graecorum*[13] and the *Roman Provincial Coinage*.[14]

Each numbered coin was digitally photographed (Fig. 1). Some pictures have been taken using raking light to enhance details and aid in identification. In the case of DN 7, an Alexandrian tetradrachm, the details of the portrait of Divus Augustus became much more visible with the aid of raking light (Fig. 2).[15]

Figure 1. A student takes digital photos

13 http://www.sylloge-nummorum-graecorum.org/

14 https://rpc.ashmus.ox.ac.uk

15 DN 7, Billon tetradrachm minted in Alexandria. Diameter: 23 mm; weight: 4.80 g. Obverse: Laureate head of Tiberius l. ΤΙΒΕΡΙΟΣ ΚΑΙΣΑΡ ΣΕΒΑΣΤΟΣ. Before the neck LIΔ (year 14). Reverse: Radiate head of Augustus r. ΘΕΟΣ ΣΕΒΑΣΤΟΣ.

Figure 2. DN 7 photographed with normal light, left, and with raking light, right

Research and educational opportunities

A case in the hallway of the Department of Classics displays some of the artefacts studied and treated in recent years by graduate students in Classics and Art Conservation (Fig. 3).

Figure 3. Display of artefacts from the Diniacopoulos Collection at the Department of Classics

The display is a result of sharing a collection between two academic departments, as diverse points of views are included. In 2018 planning began to create a project that involved students from both programs in a more active way. By the Fall of 2019 a class was created that included both first-year Classics graduate students and graduate students specialising in artefact conservation (Fig. 4).

Figure 4. Class together. Professor Zaccagnino (left) with students Anton Strachan, Emma March, and Emilee Lawrence

Other than some preliminary numismatics readings,[16] students did not have backgrounds in numismatics, nor had they ever handled ancient coins. In class students were introduced briefly to ancient coin manufacture, as well as descriptive terms and cataloguing techniques. Then, students were divided into groups of three to four students from both programs, and each group was assigned a coin from the Diniacopoulos Collection. With gloved hands, each group was given 30-40 minutes to examine their coins. When the class reconvened, each group reported on the assigned coin, describing the type, the legend, and the conservation status. The intended outcome of the activity was not just the identification of the coin, but rather the understanding of the interdisciplinary approach needed in the study of archaeological artefacts. For many this was the first time that they formally combined two approaches to better interpret an archaeological object.

16 Schaps 2011, Chapter 16 Numismatics.

In the winter of 2020, some students from Classics joined their conservation peers in the conservation laboratory, where the coins were being examined for treatment. The instructors chose seven coins in various conditions; some were illegible or unstable due to heavy corrosion and other factors. Classics students helped their colleagues in a preliminary identification of the coins, which helped to guide conservation students' treatment goals. Artefact conservation students researched alloy composition, manufacturing techniques, previous restorations, and cleaning methods. They performed conservation treatments according to current standards, while their Classics peers identified the coins and provided historical contexts.

Typically, Classics professors show their students only very well-preserved coins and do not include coins that require extensive conservation work. Only students who participate in an archaeological dig have the opportunity to see how a coin appears upon its discovery. There is much excitement among students when a coin is discovered; this was the case for a silver denarius of Vibius Pansa issued in 90 BCE found in 2012 in Cerveteri,[17] an excavation project run by Fabio Colivicchi, a professor at Queen's University (Fig. 5).[18] In this case, the coin was very well-preserved, and identification was possible even before it was treated by an art conservator (Fig. 6).[19] This was not the case for other coins found during the same campaign that presented corrosion and accretions on their surfaces.

Figure 5. Coin of Vibius Pansa from Cerveteri before treatment

17 On the obverse, laureate head of Apollo right; before the neck control-mark (vase); the legend *Pansa* has been off-centered and is not present; border of dots. On the reverse, Minerva in quadriga left, holding spear and reins in right hand and trophy in left hand; in the exergue *[C] Vibius C.F.* For a similar coin of Vibius Pansa see Crawford 1974, 342/5b; Ghey, Leins, Crawford 2010, 342.5.2.

18 For the Queen's excavation see Colivicchi et al. 2016.

19 The coin was treated site on by Krysia Spirydowicz from the Queen's Art Conservation Program, who that year joined the excavation with the student Anna Weiss from the same Department, who was doing her required summer internship. On the surface a compact layer of silver chloride was mixed with silver sulfide, which was mostly removed with the exception of a very few stubborn patches.

Figure 6. Coin of Vibius Pansa from Cerveteri after treatment

After examination it became clear that Diniacopoulos coins had been neglected—some had aged restorations and others were left with heavy corrosion.[20] The presence of extensive corrosion gives conservation students the unique opportunity to examine corrosion on various metal alloys. Corrosion structures may give clues about the elemental composition, manufacture, and dating of the coins. Corrosion types also indicate the history of the coins in archaeological and atmospheric contexts; by analysing the compositions of the corrosion products, conservation students are able to trace the environments in which the coins existed. There are some types of materials on copper-alloy coins that conservators would expect from one with an archaeological past and other materials that indicate post-excavation interventions. For example, in 2020 a student documented a white layer on copper on a pair of alloy coins that were conjoined through corrosion (DN 232) (Fig. 7a).[21] A sample of this white layer, indicated as Layer 4 in the stratigraphy (Fig. 7b), was analysed using Fourier Transform Infrared Spectroscopy (FTIR), one example of analytical equipment available through the Master of Art Conservation program at Queen's. The white layer was found to contain shellac and silicates—in other words, a restoration coating and likely soiling.

20 A few of them were analysed using Micro-focus X-Ray Computed Tomography and Neutron Computed Tomography in a project that intended to experiment with 'digital cleaning', see Nguyen *et al.* 2011.

21 The two conjoined coins weighed 19.38 g. The conjoined coins were documented and treated by an Artefacts Conservation graduate student, Marianne LeBel. The stratigraphic drawing is her work.

Figure 7a. DN 232 pair of conjoined coins

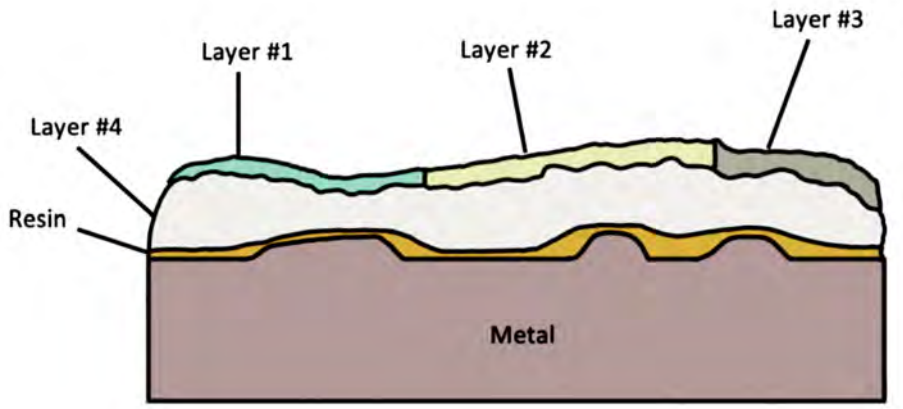

Figure 7b. Stratigraphy of DN 232

This finding of restoration materials further corroborated a previous conservation student's 2017 archaeometric analyses using X-ray Fluorescence (XRF) and FTIR, with the intent to recognise traces of previous treatments. Olga Diniacopoulos had trained as a restorer at the Louvre during the 1930s. Some of her restoration materials were also included along with the collection that was acquired by Queen's.[22] Paraffin wax found

22 Spirydowicz 2006, 305.

on the surface of a bronze drachm of Antoninus Pius (DN 120) was comparable to a sample of wax from Olga's kit; therefore, it was probably treated by her.[23]

After being detached, one of the two coins (DN 232-1) was treated by a student from Art Conservation, making it possible to see the reverse for the first time.[24] With the help of students from Classics, the coin was identified as a billon tetradrachm issued in Alexandria. On the reverse there are two clasped hands and the legend ΠΑΤΗΡ ΠΑΤΡΙΔΟC (Father of the Fatherland). On the obverse, is the laureate and cuirassed bust of the emperor Hadrian; the legend states ΑΥΤ ΚΑΙ - ΤΡΑΙ ΑΔΡΙΑ CƐΒ (Emperor Caesar Trajan Hadrian Augustus) (Fig. 8).[25]

Figure 8. Obverse and Reverse of DN 232-1

Because of wear, accretion, and corrosion on coin surfaces, a complete identification is not always possible. X-ray microtomography, also known as micro computed tomography, was employed in order to do a preliminary identification of the coins and to guide slow, mechanical cleaning by art conservation students.[26] This became an opportunity to involve undergraduate and graduate students from the Department of Mechanical and Materials Engineering.[27] For the engineering students, it was their

23 About this coin see p. 7 note 29 and Fig. 12. The paraffin wax was detected by Art Conservation student Mikaela Marchuk who web-published the results of her research in a poster accessible at the following link:

https://www.queensu.ca/art/sites/webpublish.queensu.ca.artwww/files/images/Marchuk%20-%20posterfinal.jpg

24 After the treatment, DN 232-1 weighed 9.52g; the diameter was 25 mm.

25 For a similar coin see RPC III, nr. 5728.

26 Conservation students learned about the advantages to slow, sometimes painful mechanical cleaning in their course with Emy Kim. For further information, consult Stock 1999, 43.

27 Graduate student Adric Heney and undergraduate Caroline Baril worked in the lab of Mark Daymond on an Xradia micro-CT.

first experience dealing with an ancient artefact and ancient alloys. One coin that was chosen for scanning via micro-CT, DN 43, was heavily encrusted, especially on the reverse. While it was possible to recognize a portrait of Tiberius on the obverse with the naked eye, the reverse was completely illegible (Fig. 9). Thanks to the image obtained (Fig. 10), it was possible to see the radiate head of Augustus and the legend. This helped the Classics student in identifying the coin and guided the Art Conservation student in treating it.

Figure 9. Encrusted reverse of DN 43

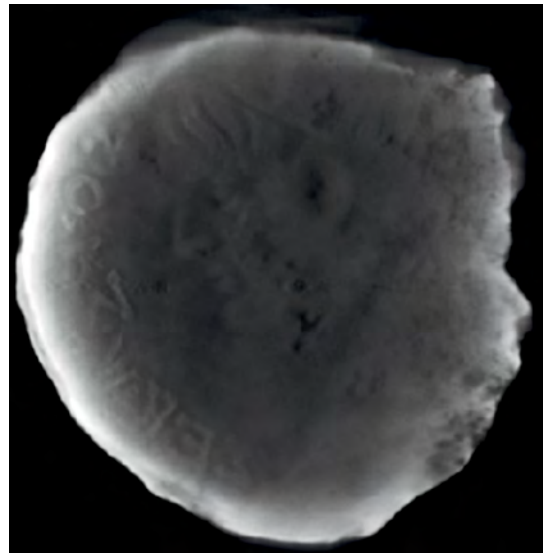

Figure 10. Micro-CT scan of the reverse of DN 43

This project has not focused on the coins alone. Students have learned about the importance of different kinds of data when dealing with coins, including the fact that the lack of any information about their original contexts prevents us from fully understanding their historical, economic, and social significance. The work thus far has revealed that the collection is an assemblage of coins issued in the Eastern Mediterranean, including Greek Hellenistic and Roman Imperial issues. These were probably uncovered during excavations in Egypt and the Levant in the early 20th century and acquired by the Diniacopouloses, who were based in Egypt at that time. Even though the assemblage is the result of un-systematic collecting, they appear to be representative of the currency circulating in the area. The collection includes many interesting coins celebrating historical events and representing myths and deities. A large number were issued by the mint of Alexandria and date from the Ptolemaic kingdom until the Roman period, with a prevalence of the latter. There are bronze drachms as well as several billon tetradrachms, especially of the Julio-Claudian period. Several specimens are dated to the reign of Claudius with on the reverse Messalina standing, veiled and holding two small figures and corn stalks, leaning on a column such as DN 107 (Fig. 11).[28]

Figure 11. Obverse and Reverse of DN 107

Among the bronze drachms, several were issued under the reign of Antoninus Pius, such as DN 120 with a laureate portrait of the emperor on the obverse and a representation of Isis *Pharia* on the reverse (Fig. 12).[29]

28 DN 107, Billon tetradrachm. Diameter: 25mm; weight: 4.16 g. Obverse: laureate head of Claudius, r. TI ΚΛΑVΔΙ ΚΑΙΣ ΣΕΒΑ ΓΕΡΜΑΝΙ ΑVΤΟΚ(Ρ); Lς (year 6). Reverse: Messalina veiled, standing l. She holds two small figures and corn stalks, leaning on column. Legend: ΜΕΣΣΑΛΙΝΑ ΚΑΙΣ ΣΕΒΑΣ. The coin has been published in Sodhi, Brodersen, Boccia, Anastassiades, Zaccagnino 2018. With regard to the much lower weight of this specimen (the standard weight of Claudius' billons should be ca. 13.3 g) and the loss of weight of Alexandrian tetradrachms see Christiansen 1988, 13 note 48 and Butcher K., Pashley V., Somerfield Ch., Ponting M., Evans J. 2014, 91.

29 DN 120, AE drachm. Diameter: 34 mm; weight: 22.10 g. Obverse: laureate portrait of Antoninus Pius r. faded inscription: AVT K T AIΛ AΔP ANTϢNƐINOC CƐB ƐVC(B). Reverse: Isis *Pharia* standing, holding sail and sistrum. Faded inscription: L ΔƐKATOV (year 10).

Figure 12. Obverse and Reverse of DN120

Students experienced exciting moments of learning and discovery through inquiry-based learning. Guided by professors from different departments, students formed questions and answered them using their peers, database searches, and scientific examination (Fig. 13).

Figure 13. Students from Classics and Art Conservation working on the identification of a coin

Sharing and advancing knowledge

Queen's University is a member of the Matariki Network of Universities (MNU).[30] In 2015 the MNU held a conference on the digitisation of university coin collections, which spurred interest in the Diniacopoulos collection.[31] The Diniacopoulos collection is currently a Matariki shared facility accessible to other partners of the network.[32] Thanks to work done in the last five years with Classics students, it is now possible to

30 For the Matariki Network see https://www.matarikinetwork.org

31 "Digitizing Matariki University Museum Coin Collections," International Conference at the Institut für Klassische Archäologie, Eberhard Karls Universität, Tübingen, 22nd to 23rd October 2015.

32 https://www.matarikinetwork.org/resources/shared-facilities/

browse some of the coins in a dedicated website, designed with the help of a Queen's School of Computing Masters student.[33]

Queen's students have presented their work within the university. One of the Classics students, Alysha Strongman, presented the results of the directed study in a poster entitled *The Diniacopoulos Coin Collection at Queen's* at the annual undergraduate conference called *Inquiry at Queen's* in March 2017.[34] Mikaela Marchuk, a conservation graduate student, presented and web-published a poster titled, 'Analysis of Corrosion Products and Superficial Residues to Illuminate the Treatment Histories of the Diniacopoulos Coins at Queen's University.'[35]

Faculty have also begun a series of archaeometric analyses with the University of Toronto colleagues from the Department of Chemical Engineering & Applied Chemistry. Preliminary results of our research have been presented in conferences and published.[36]

In conclusion, the study of the coin collection has involved students not only from Classics and Art Conservation but also from other departments, who have contributed with their different skills. The main intention was to teach our students to look beyond easy sources of knowledge. As a result, they learned the principles of numismatics and metals conservation, while experiencing the benefits of collaboration first-hand.

This project would not have been possible without the support of Queen's University and the enthusiastic participation of undergraduate and graduate students.

Authors

Emy Kim is an objects conservator and has been teaching at Queen's University as the Assistant Professor of Artifacts Conservation since 2018. She moved to Canada from the United States, where she received her conservation training from the Institute of Fine Arts at New York University, an MA in art history at Williams College, and a BA from Princeton University. One of her current research interests involves the conservation of metals using sacrificial coatings.

Cristiana Zaccagnino is a classical archeologist. Trained in her native Italy, moved to Canada in 2006 where she is currently Professor at Queen's University in Kingston, Ontario. She is the author of several books and articles on topics of Greek, Etruscan, and Roman archaeology. Her research deals mostly with ancient artefacts, iconography and iconology in ancient Greece and Rome, and the reception and use of Classical tradition in

33 https://diniacopoulos.omeka.net The graduate student who helped in designing the website was Bernard Cheng.

34 General information about the conference can be found at https://www.queensu.ca/iatq/

35 This project was a part of a research project course led by Alison Murray and supported by Gus Shurvell, Alice Paterakis, Amandina Anastassiades, and Cristiana Zaccagnino. For the link to the poster see note 23.

36 Sodhi, Brodersen, Boccia, Anastassiades, Zaccagnino 2018; Sodhi, Brodersen, Zaccagnino 2020.

Italian culture (literature, art and the politics) from the Middle Ages to our current days. With the other author of this article, she is studying the coins from the Diniacopoulos Collection at Queen's University.

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