

THE ZIBBY GARNETT TRAVEL FELLOWSHIP

Report by Puneeta Sharma



**Recreating the Medieval Palette: a pigment workshop at the
Seminario Barbarigo, Montefiascone, Italy**

27th July – 31st July 2015

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1. Introduction

My name is Puneeta Sharma and I am currently undertaking a one-year paper conservation internship at the Chester Beatty Library in Dublin, Ireland. I am of British nationality and I completed my MA in Conservation (Art on Paper) at Camberwell College of Arts in June 2014. I previously studied Fine Art at undergraduate level at Central Saint Martins. Upon completing my internship, I hope to secure a post as a paper conservator with an aim to begin working towards accredited status.

Before starting my internship at the Chester Beatty Library, I worked at Magdalene College, University of Cambridge as their first Paper Conservation Intern, and the National Archives in London as a Project Conservator. In my current role as an intern, I am developing my knowledge and skills by working on a range of illustrated and hand written manuscript material on paper and parchment.

I heard about the Zibby Garnett Travel Fellowship from a colleague of mine at Camberwell College of Arts, who had been awarded a grant during her undergraduate degree; I thought it would be a fantastic opportunity to develop my own conservation knowledge through further study if awarded funding from the Trustees.

2. Study trip overview and cost

As part of the internship at the Chester Beatty Library, interns are encouraged to undertake a short, intensive period of study to gain further knowledge in a chosen area of interest; I thought this would be a fantastic opportunity to take part in the *Recreating the Medieval Palette* pigment workshop taught by Cheryl Porter. I was able to reserve a place before securing funding for the five-day course, which ran from 27th – 31st July, in Montefiascone, Italy.

In recent years, I have become interested in paintings executed on paper, with a focus on Indian miniatures; the pigments and processes used to create these exquisite works of art increasingly became a fascination of mine. Having only a small breadth of knowledge about pigments yet constantly working with them in my current post at the Chester Beatty Library, I believed that undertaking the pigment workshop could provide me with a deeper understanding of the chemical make up and processes used to create the pigments used in manuscripts. In addition, the workshop would allow me to make well-informed decisions regarding the best conservation treatments required for pigmented objects, whilst also determining the best preservation solutions.



Detail from an Indian miniature painting during conservation treatment at the Chester Beatty Library; the highly decorative border shows the variety of pigments that were often used in these works of art.

The total cost of the trip to Italy was £1503.73 and thanks to the generosity of the Fellowship, I was awarded £900, which allowed me to travel to Florence and Rome in addition to attending the pigment workshop. I also received grants from the York Foundation for Conservation and Craftsmanship and the Chester Beatty Library, who initially could not contribute to the trip. I raised the remaining costs through saving from my employment. With the additional funding I secured, I was able to return £100 to the Trustees.

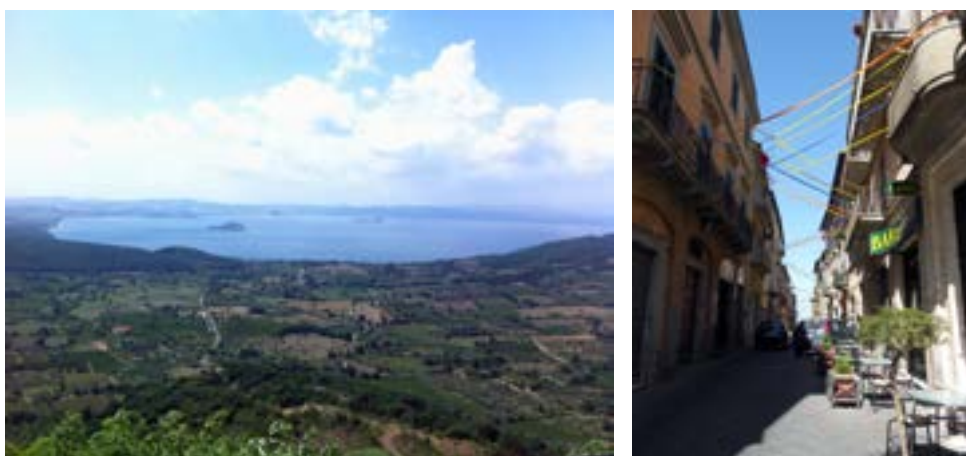
3. Report: The Zibby Garnett Travelling Fellowship 2015

3.1. Destination: Montefiascone, Italy

This was my first time travelling alone and having this experience in Italy was exciting in many ways, mainly due to the friendly nature of the people and the beautiful sights whilst travelling from one city to another. I arrived in Montefiascone on Saturday 25th July, where I spent the duration of my stay in Hotel Urbano V. Montefiascone is the highest town in the province of Viterbo in Lazio, which is situated about 80 miles north of Rome, in Italy. Lake Bolsena sits at the bottom of the town, which is the largest volcanic lake in Italy.



Map of Italy, which is located in Southern Europe, showing the areas I visited during my trip, including Florence, Montefiascone and Rome. ¹



Above left: view of Lake Bolsena from near the Seminario Barbarigo, where the pigments workshop was held. Above right: the street where I stayed in Hotel Urbano V.

¹ Map of Italy: https://simple.wikipedia.org/wiki/List_of_cities_in_Italy [Accessed 9 August 2015].

3.2. History of the Montefiascone Conservation Project

The pigment workshop I took part in runs during the last week of July every year in the picturesque town of Montefiascone, in Italy. It is part of the Montefiascone Conservation Project, which runs for a month every summer, and includes a wide range of courses including historic book-model making and the medieval palette course.



Views of Montefiascone from near the Seminario Barbarigo.

The Montefiascone Conservation Project was founded by Cheryl Porter in 1990, when she visited the disused Seminario Barbarigo and realised it needed to be brought back to life. With the help of conservation professionals and volunteers from around the world, the Project works to preserve the library and books for the priests in the seminary, the local townspeople, and international scholars of the book. The workshop fees are put towards the maintenance of the project.

Cheryl Porter trained as a paper conservator before working at University College London (UCL) Paintings Analysis Unit where she investigated the use of pigments in paintings and manuscripts. Cheryl now works as a consultant in Egypt for institutions with manuscript collections. As well as being the Director of the Montefiascone Conservation Project, Cheryl teaches there every year.

3.3. Recreating the Medieval Palette pigment workshop

The five-day workshop consisted of lectures during the morning, followed by practical sessions of paint and ink making in the afternoon. The workshop allowed me to gain a deeper understanding of the history, chemistry and use of pigments that were produced during the medieval era, with a focus on European and Islamic manuscript art. For the medieval artist, understanding materials was a huge part of their knowledge and learning; they needed to know where to buy materials, how to make paint, how to apply their paints to specific supports such as plastered walls or parchment, and to learn the skills necessary to determine their quality. The pigments used by the medieval artist were largely determined by what was available, often determined by trading patterns and what was affordable. For conservators it is useful to have an understanding of pigments and their chemistry to be able to make informed decisions when treating pigmented works of art. This is important in my early development as a conservator where I am constantly developing my body of knowledge whilst working with paper based collections.



Above left: the Seminario Barbarigo where the workshops are held during the summer school.
Above right: Cheryl Porter presenting a lecture highlighting the use of two different green pigments in an Islamic manuscript.

During the workshop we studied two groups of pigments; organics such as indigo and madder, and inorganics such as gold and lapis lazuli. Inorganic pigments are further separated into natural or synthetic. Some synthetic pigments include vermilion, lead white, red lead and lead tin yellow. We also had the opportunity to study inks including iron gall ink and carbon ink.



Participants preparing the wonderful blue pigment lapis lazuli.

3.3.i. Creating colours for painting

To create a colour for painting, a chosen ground pigment was firstly mixed with a small amount of water using circular motions in the shape of a figure-of-eight, to create a thick paste. At this stage the pigments were ground to the required particle size; some pigments need to be finely ground while others lose their colour if they are ground too much. Following this, a binding agent was added to the paste, to bind the pigment particles together and to help the pigment to stick to the painting surface. In the workshop we tested a variety of different binding agents including egg white, egg yolk and tree gums.



Above left: mixing egg yolk with Vermillion to produce a beautiful red colour, which was very easy to apply to all papers and parchment. Above right: the binding agent gum arabic in its raw form.

I found it particularly useful to learn about the binding agents used in pigments.

At the Chester Beatty Library I have been conserving a collection of Indian

miniature paintings, which have problems with lead white based pigments flaking. Learning about the different types of binders that would have been used with pigments has allowed me to understand why this flaking occurs, which helps me to make better informed decisions when treating such works of art.



Above left: a range of different binders including egg white and gum arabic.
Above right: experimenting with binders; adding egg white to blue woad mixed with water.

3.3.ii. Organic pigments

The study of organic pigments focuses on colours made from plants and animals or insects. Organic pigments produce an enormous variety of colours, tones and intensities. They can be used as stand alone or modified with pigments and they are particularly well suited for manuscripts. The problem with organic pigments is that they are not light fast (hence their use in manuscripts); they bleed easily and are prone to fading as few organic colours retain their shade and strength, and they can fade to grey/brown. They can only be made in season so can they could only be used for a few months of the year.



Weld (above left) and saffron (above right) in its raw form.

One way in which artists solved some of these problems was by making clothlets. The process involved squashing the insects or plants until a juice was produced and then soaking up as much colour as possible with small pieces of cloth that were dipped into the extract. The cloth was left to dry and the process was repeated many times to get a saturated colour. When ready to use, a small piece can be cut off the clothlet and soaked in warm gum, which bleeds out the colour. Clothlets were fine for the manuscript painter's needs, however they were not so good for an easel painter or someone who needed more bulk or covering power. Unfortunately due to time constraints we were unable to make our own clothlets but this is something I hope to do in my own time to test the density of the colour released from it when activating it with warm gum. As I enjoy using watercolours for my personal work, I found this technique rather fascinating and I would love to try it for myself in the future.



A selection of process lake pigments made during the workshop.

By the 14th century there was a technological leap and the most common way to preserve organic colours was to create a powder pigment from the colour juice or dye (process), which is called an organic lake pigment. A lake pigment is the juice produced from the plant or insect, which can be precipitated onto a colourless mineral base, usually aluminium hydroxide, so that it could be stored as a powder. The idea is to turn a soluble organic into an insoluble pigment. Again, due to time constraints and the complexity of this process, we were

unable to make our own lake pigments. We were however, able to work with ready-made lake pigments.



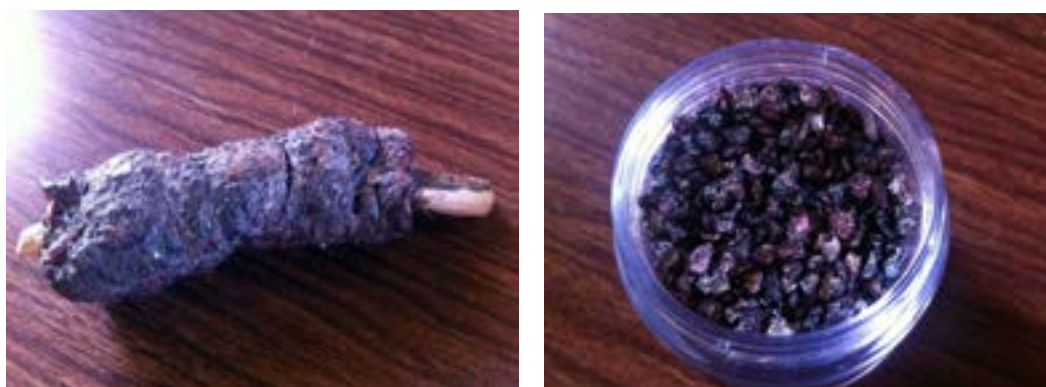
Adding gum arabic to a rose madder lake pigment, which was pre-made, before grinding it further.



Above left: Cheryl Porter demonstrating the process of making a weld lake pigment, which involves straining dry chopped weld stems after having been soaked in water. Above right: the weld juice after aluminium sulphate and potassium carbonate were added creating a forth.

Learning more about insect colours was really interesting for me as I am fascinated with bugs. One example is red lac, which is an organic pigment made from a secretion of the *Kerria lacca* or *Coccus lacca* insects that live on the ficus tree and are native to India and South-East Asia. The word lac comes from the Sanskrit word meaning 100,000 due to the number of insects that live together.

The insects secrete a waxy resin, which can be harvested from the branches of the tree. This is referred to as stick lac.



The harvested stick lac is crushed and then it is sold as seed lac.

Lac was an expensive dye used in ancient India, China and Syria, and then used in Western Europe by the Romans. It was often used as a lake and recipes are found extensively in the 14th century. The same material was also used for shellac and varnishes. Conservators must consider several factors when dealing with lac in manuscripts; the colour is very sensitive to pH as well as moisture. Additionally the red lac colour reacts to changes in temperature and humidity.

3.3.iii. Inorganic pigments

Inorganic colours are made from rocks, stones and minerals, which are divided into sub-categories including earths, natural minerals, metals and synthetic colours.

Earth colours

Earth colours are the oldest pigments; they were used in cave paintings, throughout antiquity, the medieval and Renaissance period, and in fact, we can find them on the palette of almost every artist in history. Earth colours were usually the workhorse of the palette, and not often used for the 'fancy' colours but mostly for filling background spaces. They were used to a lesser extent for manuscript painting, but yellow ochre, red ochre and green earth (terra verte) have been identified on manuscript paintings.

Earth colours have a number of advantages; they are cheap, widely available and easy to prepare. They are chemically inert and compatible with all other pigments and supports. They are great for wall paintings where the sun exposure will not affect it and being cheap means you can paint large areas with no regard to cost. Having good light-fast characteristics is also crucial to wall painting, but obviously of less importance in manuscripts, where the pages are not usually exposed to light, but remain closed and protected by their covers.

Natural mineral colours

Natural mineral colours require no chemical processes to create the pigments. Some of these colours include ultramarine (lapis lazuli), malachite and azurite, which are some of my favourite types of pigments. The blue pigment ultramarine was the most glamorous, mysterious and expensive of all pigments in history; it is more expensive than gold. Ultramarine is made from the stone lapis lazuli, which until the 19th century came from one place in the world, which were the ancient quarries in north-eastern Afghanistan. Nowadays, it can be found in Tibet, Siberia, Spain and Chile. Interestingly, blue was associated with the East, whereas in Europe it was used very sparingly, as it was associated with death. Having blue eyes was seen as a physical deformity; for example, masks from Roman times had blue eyes. This was a really interesting part of the lectures as the majority of material I have worked on at the Chester Beatty Library has been Islamic, where blue is a hugely significant colour.



Adding water to ground malachite and then grinding it using a muller before adding a binding agent.

I have often come across natural mineral colours whilst working on the Islamic collections at the Chester Beatty Library. One example is a collection of Indian miniature paintings, which often contain colours such as ultramarine and malachite. After attending this workshop, I was able to recognise colours in the collections I have been working with, with much more ease and confidence. One example is the wonderful blue colour in the image below, which is heavily abraded. It is possible that this pigment is azurite. During the workshop, I discovered that azurite should be mixed thoroughly with water and then ground to create the required colour. When azurite is coarsely ground it produces a deep blue colour and when it is more finely ground, it becomes paler.

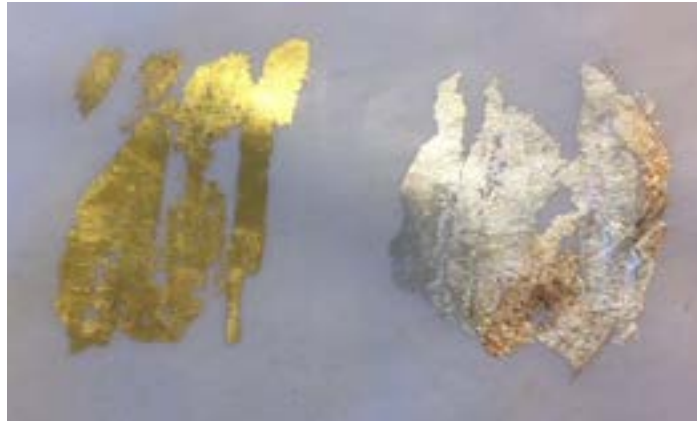


Detail from CBL In 11A.73, *Ganesa and his Vehicle*, 1800-1810, which illustrates the abrasion of the blue pigment (possibly azurite). When applying azurite to the different supports I was working on during the workshop, I noticed how grainy the texture felt if it was not mixed properly, and therefore, this is a reason why abrasion can occur.

Metals

Metals including gold, silver, tin and bronze are often found in manuscripts. In the workshop we learnt about the importance of gold as a pigment, which is used in three different ways; as a leaf, as a ground or as paint. At the Chester Beatty Library, a large amount of gold can be found in Islamic manuscripts, which was applied to reflect the sun and to illuminate the book. The amazing thing about gold is that it will not tarnish or lose its lustre. Applying gold as a leaf was particularly challenging for me. Firstly, a binder is applied to the paper or parchment, which in this case was egg white. The leaf is then cut with a knife and gently lifted with the static from a brush and placed on top of the binder on the paper or parchment. Silver leaf is also applied in the same way. Although

this was challenging to apply well, painting in gold was even more difficult, which allowed me to gain a huge appreciation for the Islamic manuscript painters who would constantly use this pigment in the work of Qur'ans.



Gold and silver leaf applied to parchment on top of an egg white binder. The silver shown in the image above is already tarnishing, which is a common problem with silver. The application of gold and silver leaf takes great skill and my attempts were slightly embarrassing but it was great fun to experiment with.



Painting out shell gold onto a sheet of parchment and applying silver leaf to paper.

Synthetic inorganic pigments

Synthetic inorganic pigments include lead white, red lead, lead tin yellow, Verdigris, cinnabar, and vermilion. Lead white was one of the most important pigments in the history of painting as it has wonderful density and whiteness; it was the best pigment for creating highlights. Chalk and bone were other options for white but they were often used as mixers only and their opacity was nowhere near as good as that of lead white.



Experiments using lead white.

During the workshop I had the chance to make lead white and immediately I could see some difficulties in working with it. Firstly, most pigments are mixed with a small amount of water to create a smooth consistency before adding the chosen binder to it. However, as lead white is insoluble in water, this proved to be rather challenging. Therefore, mixing it with a binding agent was more successful in creating a thick paste.

Due to the density of the lead white pigment, large amounts of gum were added to the pigment to create a smooth texture to paint with. The heavy lead and the large amount of gum arabic binder added to the pigment often result in the flaking of lead white pigments on manuscripts. A new awareness of the historical and chemical problems with lead white has informed my understanding of the manuscripts I have been treating at the Chester Beatty Library. I now understand that many other pigments used in manuscripts were likely to have been mixed with lead white to create lighter colours, one of the reasons why flaking occurs.

3.3.iv. Inks

On the final day we studied inks, which are either water based or oil based as in printing. Good ink should be thin so that it flows easily from the pen, however it needs to be thick enough so that it does not bleed out on the support. It needs to adhere to the surface well and it should maintain a sustainable colour for many years. Permanency depends on a number of factors.



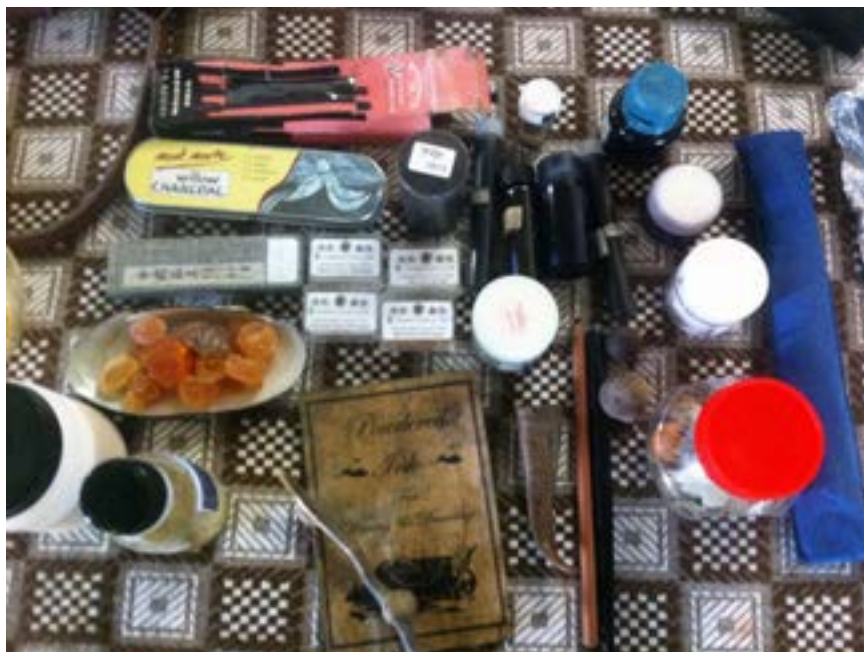
Experimenting with different inks, using a quill of course!

Writing supports were dependent on the availability of materials and the stage of technological development and culture within specific regions. Bamboo was used in China, palm leaf in India, and papyrus in Egypt; tradition has a modifying influence. The type of support determines how you write, what you write with and the longevity of the item.

Carbon black

Carbon ink (also referred to as lamp black) is obtained by burning carbon materials in a low air environment. It has lots of fats that have to be removed or the ink will turn brown. The particles were mixed with gum, gelatine or egg white to produce the ink. The Chinese burned tung oil in terracotta pots to get their blacks. All Islamic calligraphy is carbon black and it is still used extensively in the Far East where it is the preferred ink for calligraphy. Almost all Qur'ans are written in carbon inks, except Kufic ones, which are written in iron gall ink. From the 17th century, black inks were imported via China from India, and hence the name for this ink, Indian ink. Often a gelatine glue used with ink in China but in Europe it was often gums.

Carbon inks are chemically stable, not injurious to other pigments or supports, light fast (will not fade much), not affected by acids or alkalines and are cheap and easy to make. However, it is easily rubbed, scratched out or smudged because it only sits on the surface of the support and does not penetrate the fibres. A lot of carbon black contains shellac, which can dissolve in alcohol. For the conservator it is important to note that Indian ink often contains shellac (natural resin from the lac insect), which is insoluble water, but soluble in alcohol. Reed pens were used in the Islamic world, whereas in Europe the quill was used. Traditionally the finest quills were made from feathers of birds that have no song, and the feather taken from the left wing.



A selection of inks and binding agents from the last day of the workshop.

Iron gall ink

Iron gall ink is made from tannic acid (which is contained in gall nuts found on oak trees) mixed with iron sulphate, water or wine and gum. Gall nuts are formed by certain insects, which lay eggs in the soft growth tissue of a tree. The tree responds by forming an antibody, creating a woody extract, which then dries out and leaves behind the gall nut.

The best gall nuts are the ones that contain insects. Aleppo oak gall balls are found upon branches of a small oak tree and are found in abundance on the Syrian coast, all the way to the river Jordon. These gall nuts contain the highest gallotanic acid of all galls. Before the 19th century, all galls were imported until the insect was introduced into England.



A selection of gall nuts, which come in a variety of sizes.

Iron gall ink was used on Egyptian papyri from the 3rd century and on a Christian manuscript in the 4th century. From the 12th century most scribes in Europe used iron gall ink for writing (but not for calligraphic work). From the 9th to the 15th century it was the most common European ink. It was often combined with carbon black to create a denser colour. Scribes in the Islamic world used iron gall ink for everyday work but only carbon inks for the Qur'an. The advantage with iron gall ink is that it does not smudge and it cannot be scraped off the surface, so it was often used for legal documents.

Learning more about inks was really interesting for me, as I have been working on a collection on Hebrew manuscripts at the Chester Beatty Library, which are written with black ink on parchment. Some of these manuscripts suffer from damage in the form of corrosion of the support and problems with the ink pinging off the parchment. As the ink is very dark, this has led conservators and myself at the Chester Beatty Library to believe that the ink is a mix of carbon black and iron gall, which would possibly explain the reason for its deep black colour and the corrosion damage.



Detail from CBL Heb 753.1., a Samaritan Pentateuch fragment, 14th–16th century, which has large areas of loss to the text, which is likely to be a result of the ink used.

3.4. Visit to the library of the Seminario Barbarigo

Whilst in Montefiascone, Cheryl Porter took us to the library of the Seminario Barbarigo, where the beginnings of this project were established. Here we were able to see a variety of printed books and manuscripts belonging to the library. Of particular interest to me, was a legal document on parchment, which contained an illustrative letter, where the pigment azurite was used over ultramarine, showing the use of different blues in manuscripts.



Inside the library of the Seminario Barbarigo and a detail from a parchment document.

3.5. Leisure time in Montefiascone

Montefiascone provides a breath-taking backdrop for walks around the area and the gentle evening breeze made strolling around the town more enjoyable in the strong summer heat.



A stunning view from near the Seminario Barbarigo.

Lake Bolsena is one of the most popular attractions in Montefiascone, where most tourists would spend their leisure time. On my first day after having a dip in the lake, I ate a local lake fish at a restaurant, which was absolutely delicious. The variety of food available makes one spoilt for choice, as there are many restaurants scattered around the town.



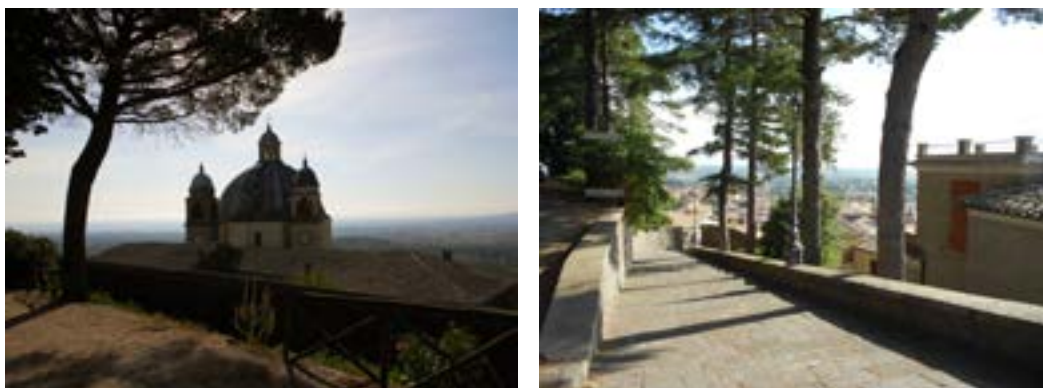
Above left: view of Lake Bolsena from the shore. Above right: a local lake fish.

On one of the last days of the workshop, Cheryl arranged a dinner hosted by Anthea Bulloch of www.poshnoshandpromenades.com, where all the participants of the course attended. Anthea is a long-term supporter of the conservation project and provides a service of cooking and walking around Montefiascone for a fee. The meal cooked by Anthea consisted of four delicious courses, followed by a stroll in her garden and a wander around her house.



Dinner is served in Anthea's house where she cooked a four-course meal.

On my last day, I walked to the top of the town where the Giardino Rocca dei Papi (Gardens of the Fortress of the Popes) is located. From here you can experience a 360-degree view of Montefiascone. This was an idyllic end to my time here, as I strolled through the gardens, soaking up the outstanding views.



Views from the Giardino Rocca dei Papi where the entire town of Montefiascone can be seen.

3.6. Trip to Florence and the National Central Library

My first stop upon arriving in Italy was in Florence, where I spent two nights in this incredible city. Here I was able to see Michelangelo's David at the Academy Gallery, which was absolutely astonishing, especially having seen it in books and on television for many years. I also had the chance to climb to the top of the Cathedral of Saint Mary of the Flower, visit the Santa Maria Novella church and take a walk along the River Arno.



Michelangelo's David.



The beautiful Santa Maria Novella church in Florence and the fresco paintings inside.

I was able to visit the National Central Library in Florence, where I met Book Conservator, Alessandro Sidoti, who kindly showed me the conservation studio and explained in great detail, the impact the 1966 Florence floods had on the conservation profession. When the River Arno flooded in 1966, it damaged many valuable collections that were kept in the basement of the library. Due to the large scale of damage, conservators from across the globe helped with the relief effort and treatments such as the use of Japanese repair papers and the

development of heat-set tissue were researched in Florence during this time to deal with mass treatments.



A beautiful view of the River Arno in Florence, which flooded in 1966.

Thorough documentation and minimal intervention in order to maintain as much original information as possible was also established in Florence during this time. This devastating event allowed professionals to share their knowledge, and henceforth, the broader issues of preservation including storage, environmental monitoring, disaster planning and pest management would need to be addressed amongst collections elsewhere. I found this visit incredibly interesting as it showed me where the beginnings of current conservation thinking were established. I also had a chance to see water-damaged items from the flood, which put into perspective the sheer volume of destruction that had occurred in 1966. (Unfortunately, due to security reasons, I am unable to publish any photographs from this visit). Conservators are still working on flood-damaged items, whilst also taking on new projects, further highlighting the scale of work being carried out at the National Central Library.

In Florence I had my first taste of Italian food, including pizza, spaghetti and gelato. I was especially keen on pistachio, caramel and vanilla gelato. I also had

the chance to visit the well-known Zecchi art supply shop, where I purchased a small amount of malachite and a beautiful agate burnisher.



Above left: delicious caramel and vanilla gelato. Above right: pigments in the Zecchi art shop.

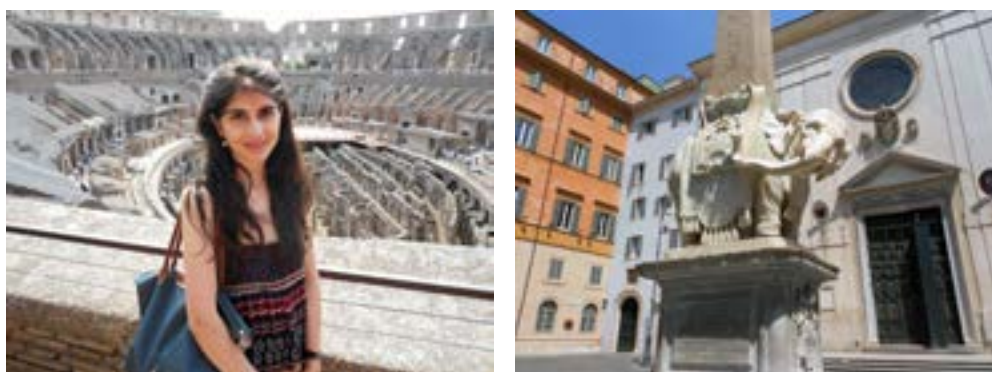
Florence is an incredible city and although I only spent two nights here, I was able to do a great deal in my time. I am certain I will return, as I was unable to visit many of the galleries and museums located in the city.



Above left: at the top of the Duomo of the Cathedral of Saint Mary of the Flower.
Above right: enjoying a delicious Italian sandwich whilst walking the streets of Florence.

3.7. Trip to Rome and the Vatican conservation studio

The day after finishing the pigments workshop in Montefiascone, I got the train to Rome where I stayed for five nights. During my time in Rome, I had a chance to visit heritage sites including the Coliseum, the Roman Forum, the Vatican, the Capuchin Crypt, the Pantheon and famous landmarks such as the Spanish Steps, the Trevi Fountain, the Mouth of Truth, The Victor Emmanuel II Monument and Bernini's *Elephant and Obelisk* sculpture.



Above left: inside the magnificent Coliseum. Above right: Bernini's *Elephant and Obelisk* sculpture.



The Victor Emmanuel II Monument in Rome.

I was also able to visit the Vatican Library conservation studio where I met Angela Nuñez Gaitan, Head of Book Conservation. Here I was informed about the history of the studio and the current projects taking place (unfortunately due to security reasons, I am unable to publish any photographs taken on the

Vatican premises). Angela explained the important role of Franz Ehrle, who was a Roman Catholic Cardinal who led research at the Vatican Archives in Rome from 1880-1895. In Switzerland in 1898, Ehrle organised the first international conference on the preservation of manuscripts, which is held in high regard, as it was the first time a meeting was organised, which specifically dealt with those preserving cultural heritage. Here it was established that conservation was to be studied and knowledge should be shared amongst others. Angela also talked in detail about a current collaborative project with the Bodleian Library in Oxford to digitise collections. It was a privilege to gain an insight into such a world-renowned institution and meet the conservators working here.



St. Peter's Square in the Vatican City.



Above left: view from above of the Roman Forum. Above right: a view of the outside of the Coliseum.

4. Conclusion

My study trip to Italy was such a wonderful experience, where I was able to learn more about pigments and immerse myself in a fascinating country for two weeks. The opportunity to attend this workshop in a beautiful part of Italy has been a fantastic learning experience for me. I was able to develop my knowledge of pigments to a much higher level and Cheryl Porter's lectures and instructions for making pigments and inks were not only informative but also a great deal of fun. As a variety of professionals attended the course including artists, conservators, students and historians, I felt I was able to exchange knowledge with other participants and learn more about the way in which this workshop was going to aid their work. I have also made a new group of friends and a useful group of contacts.

By the end of the week, I had created samples on Islamic paper, European cotton paper and sheep parchment, which I will use as a reference guide when looking at pigments in manuscripts in the future. The conservation of pigmented objects requires a great deal of skill and knowledge; having now attended this workshop, I feel much more confident in my decision-making when choosing the most suitable treatments for the objects at hand.



All the colours produced during the workshop on Islamic paper.

I will also apply the knowledge gained during the workshop, to my future posts as a conservator. Continuing to develop my skills and knowledge is vital to my role as an emerging professional and I am deeply grateful to the generosity of the Zibby Garnett Travel Fellowship for enabling me to attend this course.