

Sinaiticus



The Bulletin of the Saint Catherine Foundation
London * New York * Geneva
2013

ON THE OTHER PAGES

News

South Wing renovation begins at roof level
Page 2

Preventive conservation protects
historic chapels *Page 2*

Digital photography of the
Sinai manuscripts FATHER JUSTIN *Page 3*

Activités de l'Association suisse
NICOLAS GAGNEBIN *Page 3*

Father Justin's blog *Page 4*

Obituaries

Violando Embiricos *Page 6*

Peter T. Kikis *Page 6*

Charlie Manley *Page 7*

Georges Rodocanachi *Page 8*

Articles

'The Monastery is our history':
Development, change and continuity
for St Katherine's Bedu
HILARY GILBERT *Page 9*

Interpreting the Sinai mosaic
CYRIL MANGO *Page 14*

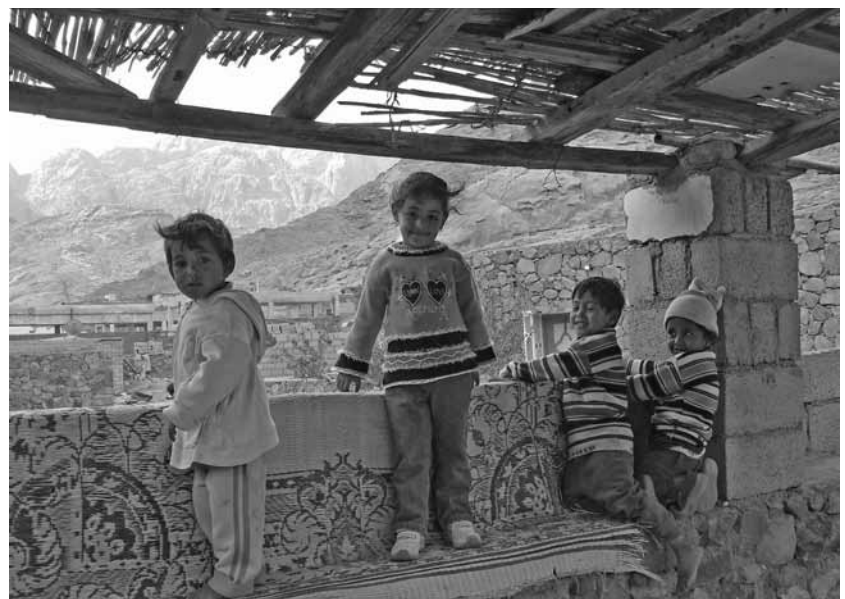
Sinai's apse mosaic: Reading list
SIMON DAVIES *Page 16*

Conservation of the mosaic of the
Transfiguration at Saint Catherine's
ROBERTO NARDI AND CHIARA ZIZOLA
Page 17

WORLD PRESS REPORTS ON PLIGHT OF SAINT CATHERINE'S MONASTERY AND THE BEDOUIN

SAINT CATHERINE FOUNDATION APPEALS FOR HELP

For much of this year Egypt has been in a state of emergency, and the security situation in North Sinai continues to cause concern. Government advisories warn against travel to the north, and many fewer tourists are visiting South Sinai this year. The local economy was already in severe decline when the monastery was forced to close for three weeks in August and September. The consequences were immediate, as recent press reports make clear (*Guardian*, 5 September, 'Mount Sinai monastery latest victim of Egypt's upheavals: Closure of St Catherine's monastery due to security concerns has devastated tourist trade of nearby town named after it'. *Washington Post*, 4 October, 'Ancient monastery has few visitors amid Sinai unrest, but Bedouin neighbors protect it'. *Time*, 18 November, 'A Great and Terrible Wilderness').



Jebeliya children at home in St Katherine. *Photo Hilary Gilbert*

Close to 1,000 Bedouin families live in the vicinity of Saint Catherine's, many of them at or below the World Bank's absolute poverty standard of US\$1 per person per day. The poorest are now going hungry, and they cannot feed their camels and animals. Many of them have appealed to the monastery for help, and the Fathers are doing what they can to provide assistance, but the monastery's resources are very limited.

The Bedouin of today continue to protect the monastery, just as their ancestors did in Justinian times. In recognition of their role as guardians of the monastery, the Saint Catherine Foundation's boards in London, New York and

Geneva have allocated funds for distribution by the monastery to the most needy. With advice and logistical support from the Community Foundation for South Sinai (see page 11), a total of \$24,000 will be disbursed over the coming winter, an amount that should provide relief to the most desperate families. The foundation is appealing for donations to augment these funds, and the proceeds of Christmas card sales will go entirely to the Bedouin.

This issue of *Sinaiticus* features an article on the Bedouin of South Sinai by the British anthropologist Dr Hilary Gilbert (see page 9). Resident for part of the year in the town of St Katherine, named after the monastery nearby, Hilary Gilbert well understands the precarious existence of the Bedouin. She makes an emotional plea for help for this beleaguered community. ‘The monastery is an integral part of the fabric of their lives and history: they love it; they are proud of it and want to protect it. If ever help was needed to support this community, and to keep intact the historic ties of mutual care and obligation that span 1,500 years, now is the time’.

SOUTH WING RENOVATION BEGINS AT ROOF LEVEL

The monastery is proceeding cautiously with the planned renovation of the library building. Work began in December 2012 under the sure supervision of Father Theoktistos, aided by local Bedouin helpers. Father Justin’s blog on pages 4 and 5 shows how much has been achieved this year. The roof has been stripped of covering materials and insulation down to the concrete slab. The slab itself has been reinforced with steel plates and bracing rods, and superficial cracks in the concrete have been reinforced with epoxy resin grouting. The surrounding parapet wall has been rebuilt.

The work is all the more necessary in these uncertain times, as the renovated library will offer a more secure environment for the storage of the manuscripts, scrolls and early printed books.

PREVENTIVE CONSERVATION PROTECTS HISTORIC CHAPELS

JOHN AND MARY MANLEY FUND THE WORK IN MEMORY OF THEIR SON CHARLIE

Three chapels within the South Wing were at risk of damage during the planned renovation of the library: the Chapel of the Archangels, Chapel of the Prophets Moses and Aaron, and Chapel of St Nicholas. Construction work could have destabilised these historic structures and the wall paintings, plasterwork and timber elements they contain. A team of conservators from the Greek Lithou Sintirissis consultancy travelled to Sinai to evaluate the condition of the chapels and take precautionary measures. They made two visits of one week each, in May and June 2013.

The barrel-vaulted Chapel of the Archangels contains painted decorations from the sixth century, including bird and plant motifs and imitation stone veneers and pilasters. The image of the Virgin in the domed Chapel of the Prophets Moses and Aaron probably belongs to the Late Byzantine period, while the figures of the prophets there are predominantly recent (1950s). Inspection of the paintings revealed problems of powdering, discolouration and loss of pigment, cracking and internal voids, and infills with a variety of mortars and plasters. Conservators dry cleaned surface deposits, applied grouting and filled internal voids.

The Chapel of St Nicholas is noteworthy for its plasterwork decoration and the graffiti written on it – the names of pilgrims inscribed over centuries, some with the date of their visit to Mount Sinai. The sixth-century space was converted to use as a chapel in Middle Byzantine times, when the plasterwork was created and the icon and wooden chandelier installed. Straightforward consolidation and cleaning work was needed here. The conservators have strengthened the plasterwork and reattached fallen sections, while protecting the graffiti against damage. The stone floor was consolidated and cleaned as well.

Timber elements in the chapels have been affected to a greater or lesser extent by wood-boring insects, notably the elaborate polychrome and gilt altarpiece in the Chapel of the Prophets Moses and Aaron. Pending further treatment, the altarpiece has been carefully removed and wrapped for storage during construction work.

The project to protect the chapels was undertaken with the generous support of John and Mary Manley. It is dedicated to the memory of their son Charlie, who loved churches, and especially Sinai.



Chapel of the Prophets Moses and Aaron: preparation for grouting.

DIGITAL PHOTOGRAPHY OF THE SINAI MANUSCRIPTS

We are continuing with our program to photograph the Sinai manuscripts with high resolution digital cameras. Our original Sinar camera, with the cradle made by Alan Buchanan, is still capable of taking excellent photographs. To this, we were able to add a camera and cradle made by Stokes Imaging, of Austin, Texas. Our work is being guided by the requests of scholars, in which we are a little behind.

Current projects are the photography of representative pages of dated Georgian manuscripts for a handbook on Georgian palaeography that is being published by the Centre of Manuscripts, in Tbilisi, Georgia, and the photography of a number of Arabic manuscripts for the faculty and students of the Orthodox School of Theology at Balamand University, in Lebanon. Scholars have come to rely on these photographs even more these days, when there is more apprehension about traveling to Sinai.

The second major project has been the photography of representative palimpsest manuscripts, that is, manuscripts where the original text was erased, and the parchment used a second time. Through the use of multi-spectral imaging techniques, these faded erased texts can be clarified and recovered. This process begins with the photography of a folio with separate narrow bandwidths of the colour spectrum, ranging from ultraviolet to infrared. These separate photographs are then combined and enhanced by imaging specialists, to clarify the underlying text. Scholars who are already familiar with the Sinai manuscripts will make the preliminary identifications of these texts, and assign a date based on the palaeography. We are certain that these newly recovered texts will be of the greatest interest to scholars.

We are also beginning a project to photograph our large collection of scrolls in Arabic and Turkish. These photographs will be taken in sequence on a sliding table that moves past the camera in steps. The resulting images will be joined with stitching software, so that each scroll will be one photograph, but at a resolution that allows the study of the smallest seals, inscriptions, and other details. These scrolls are a record of the monastery's long history as a respected Christian institution within the larger world of Islam.

We are grateful that the Saint Catherine Foundation is overseeing the disbursement of these funds, which were given for this purpose by a number of individuals and institutions. This guarantees that the funds are being used specifically for these digital photography projects.

FATHER JUSTIN

ACTIVITÉS DE L'ASSOCIATION SUISSE DES AMIS DE LA FONDATION SAINTE-CATHERINE

A Genève, le Comité de l'Association s'est réuni courant 2012 à six reprises.

L'événement-phare de l'année a consisté en la Conférence du Professeur Roberto Nardi, qui est venu présenter son activité de la réfection de la mosaïque de la transfiguration du Monastère qui a remporté un succès extraordinaire (voir page 14).

Le public, convoqué dans les locaux de l'Université de Genève, a été passionné et une discussion s'en est suivie entre le Conférencier et les auditeurs, sidérés du dynamisme et de l'excellence de cette intervention remarquable au Monastère.

Les membres de l'Association ont pu en outre bénéficier d'une visite guidée dans le cadre de l'exposition sur les Mots et les Monnaies à la Fondation Bodmer de Cologny. Une collaboration avec le Musée Benaki d'Athènes couronnait cette présentation.

L'Association, toujours dynamique, constate avec plaisir que les membres lui sont fidèles et suivent avec une très bonne fréquentation les conférences qu'elle organise.

Sinaiticus: the Bulletin of the Saint Catherine Foundation
Edited by Earleen Brunner and Heather Ravenberg
Designed by Emilia López (www.emilialopez.com)
© Saint Catherine Foundation 2013

The Saint Catherine Foundation and its related associations in Switzerland and the United States support conservation work at the Monastery of Saint Catherine. The monastery's library is the present focus of conservation activities. To safeguard this historic archive, the foundation is raising funds for the renovation of the Library building and for the conservation and boxed storage of the manuscripts and early books.

SAINT CATHERINE FOUNDATION

14 Cleveland Row, London SW1A 1DP, UK
Telephone +44 20 7396 5420
Fax +44 20 7396 5440
Registered charity number 1053138

AMERICAN ASSOCIATES OF THE SAINT CATHERINE FOUNDATION

485 Madison Avenue - Suite 200, New York, New York 10022,
USA
Telephone +1 212 541-6950
Fax +1 212 757-7213

ASSOCIATION SUISSE DES AMIS DE LA FONDATION SAINTE-CATHERINE

2, rue Saint-Laurent
1207 Geneva
Switzerland

secretary@saintcatherinefoundation.org
www.saintcatherinefoundation.org

FATHER JUSTIN'S BLOG

LIBRARY RENOVATION



The renovation of the library began on December 19 last year. The insulation materials covering the concrete slab of the roof were removed. Beneath the tiles were layers of sand, concrete, tar and styrofoam insulation.



In January, we received torrential rains. Some said it had not rained so much in the past twenty years. The torrents of water rushing down narrow wadis covered roads with sand and rocks, making travel impossible until these had been cleared. This delayed the arrival of the Egyptian officials who came to inspect the work that had been done.



On February 4, a team of Egyptian officials visited the monastery. This included representatives of the Supreme Council of Antiquities, and engineers. They made a careful review of the progress that had been made, and gave their approval for the continuation of the work.



These photographs, taken in April, show work that continued on the surrounding parapet wall. The concrete was removed from the inside of the wall, the stones were pointed, and the wall was restored. A portion of the wall was removed, and a hoist installed, for bringing up supplies from a truck below.



Core samples of the concrete slab were taken and tested for strength. While the concrete itself was found to be strong, the slab needed to be reinforced with steel plates, bolted through the concrete slab. This work continued through the summer.



The steel plates have now been installed. The steel rods and fastening nuts that project below will be covered when the ceiling is redone. The repointing of the surrounding parapet wall is now finished, except for one part of the wall that has been left open for the hoist. We will soon be ready to begin installing the new insulation and pavement.

OBITUARIES

Violando Embiricos (1922 - 2012)



Violando Embiricos was a founding member of the Saint Catherine Foundation and an active supporter of the Swiss association from its inception in 1999, regularly attending lectures and events in London and Geneva.

The daughter of Basil and Frangoula Goulandrakis, Violando was born into a prosperous family of Greek shipowners from the island of Andros in the Cyclades. Violando married Nicolas Koulouthros Embiricos, of the prominent Embiricos shipowning family. With Nicolas, Violando maintained a lifelong attachment to Andros, and she was well known for the ‘open house’ she held there every summer.

Violando was involved in the music world, and she was a knowledgeable and astute collector of Greek icons and paintings. She will be remembered as a lady with strong opinions, supremely elegant, a *grande dame* of Greek and English society.

Violando is survived by her two sons, Anthony and Basil Embiricos.

Peter T. Kikis (1922 - 2013)



The businessman and philanthropist Peter Kikis was a prominent member of the Greek-American community. The son of immigrants from Arcadia in the Peloponnese, Pete embodied the American dream. He was a Princeton graduate who famously studied under Albert Einstein, and his wartime service as a captain in Patton’s army provided Pete with anecdotes enough to last his very long lifetime of 90 years.

After the war, Pete became a real-estate developer, shipowner and the builder of Sutton House in New York City. He was a formidable backgammon player, ranking in the 1960s among the top ten players in the world. More recently he was associated with the Faith Endowment, an organization dedicated to the advancement of Orthodoxy and Greek culture, and he remained its president until his death at the beginning of the year.

In recognition of his service to the Greek Orthodox Church, Peter Kikis was named an ‘Archon Maestor’ of the Ecumenical Patriarchate. He was a member of the Greek Orthodox Archdiocesan Council and the Leadership 100 organization. He gave generously to the American Associates of the Saint Catherine Foundation and enjoyed the Metropolitan events, attending the *Byzantium and Islam* private viewing early last year with his grandson Peter. His Eminence Archbishop Demetrios of America commented on his passing:

‘Peter was a man of deep personal faith, passionate commitment to Orthodoxy and Hellenism, and a leading personage of enterprise. He was an elegant and eloquent man who took very seriously his responsibility for the dual legacies of Hellenism and Orthodoxy. His leadership at the FAITH Endowment has left an enduring positive mark not only on the Fund, but in the greater life of the Archdiocese, offering his faithful and dedicated services as a Member of the Archdiocesan Council and the Executive Committee. He will surely be deeply missed by his family, but also by all of us who have had the lasting privilege to know and work with him for the good of the Church. May his memory be eternal.’

Pete’s wife Helen Kalevas Kikkis died in 2008. He is survived by his son Thomas, daughter-in-law Stephanie and grandchildren Elena, Peter and Terrell.

Charlie Manley
(1995 - 2012)



‘Thank you God, for this wonderful Charlie’. These words, spoken by Charlie’s brother John at his vigil service, pay tribute to an exceptional young man. Charlie made an impression on everyone who met him. As Charlie’s mother Mary said,

‘Charlie was born with enormous challenges (we outlawed the word “disabilities” in our household very early on in our life with Charlie). But Charlie was not defined by those challenges. He was defined by his unwavering ability to make people happy. For some, the boundless joy and love of jokes reflected in Charlie’s smile and eyes was simply contagious. For others, the courage inherent in Charlie’s choice to be happy despite his challenges is what drew them in. And there were those, I think, who initially felt badly about his challenges and wanted to do something “nice” for him. But in pausing to make time for their random act of kindness, they suddenly had time to genuinely connect with Charlie...to really see him as a person, not as a category...and to drink in that smile that said unconditionally, “You’re great!”, even when his ability to say it in words failed him.

For those who never knew Charlie who might read this – well, maybe it will help them imagine the possibility that each one of us really can make a difference, really can transform the way people look at life and each other. Because that is what this 16-year-old kid with autism and Down syndrome was able to do in his short life.

Charlie loved to visit churches wherever we were. When we went in, Charlie would first check for candles and then proceed to pray the way he always did – by starting with “thank you God”. He would go on to say “... for this wonderful...” and fill in a name. I thought about this after Charlie died. What if you always said “thank you” and if everything you said thank you for was viewed as a “wonderful gift”? How would that change how you thought about the one you were thanking? Maybe it helped Charlie feel that God’s love is indeed unconditional. And because Charlie saw every person as a “wonderful” gift,

he embraced every person the same way – with his whole heart. He understood unconditional love more than anyone I have ever known. Maybe that’s why Charlie seemed so tethered to God’s houses all over the world. And perhaps Charlie’s love is why he felt such a strong pull to the Maker of that kind of love.’

Charlie and his parents visited Saint Catherine’s Monastery in January 2007, when Charlie was 11. An account of their trip formed part of a journal written for Charlie by his mother to remind him of places he had been. Charlie was always the narrator of the entries, and reading them aloud gave him reading practice. But the journal also contained stories ‘of the special way people connected with Charlie all over the world’, in the words of Charlie’s mother. The journal entry for Sinai printed below features one such story, Charlie’s encounter with Father Pavlos on the roof of the library.

Charlie’s parents made a CD of photos and video clips about Charlie entitled ‘Charlie: A Special Gift’. Charlie’s life was a special gift to his family, friends and everyone who knew him, as well as everyone who reads these lines.

From Charlie’s Tale, the journal Mary Manley kept for her son

Saint Catherine’s Monastery, Sinai Desert, Egypt

This place has everything. A room full of skeletons, a huge wall with arrow slits and something called the ‘burning bush’. It was a burning bush 3,500 years ago, but amazingly, it didn’t burn up! Something we didn’t plan happens while we are in the church. Bassam, our guide, asks a monk named Father Neilus about seeing a famous mosaic. But it is being cleaned. Father Neilus decides to show us the library instead. I have never seen so many old books. I even get to see a hand-drawn manuscript with illustrations that are called illuminations. It is in a glass case to keep it safe. I can tell it is really special.

Then Father Neilus takes us to the roof to see the view. This is where we meet Father Pavlos. Father Neilus tells us Father Pavlos is the spiritual director of the monastery. Father Pavlos is sitting in a folding chair and praying with his eyes closed when we arrive. Mom is worried that we have interrupted his prayer because he opens his eyes. But Father Pavlos does not look annoyed at all. Instead, he acts like seeing me is his prayer. He comes over to me and blesses me. It is hard to explain how happy his blessing makes us both feel. We just hold on to each other for a little while. A long hug is the only way I can think of to show my feelings.

About a year later, Charlie’s dad was flipping through trip photos with Charlie. He came to the photo of Charlie and Father Pavlos. He asked Charlie, ‘Do you know where this is?’. Charlie answered, ‘Egypt.’ Then his dad asked Charlie if he knew who was in the picture with him. Charlie replied, ‘God.’ I have often wondered what Father Pavlos would say if asked the same question about Charlie.

Georges Rodocanachi
(1937 - 2013)



Georges and Tania in Brasilia (top). Georges and Carol at Isola Bella.

Georges Rodocanachi was a steadfast supporter of the Saint Catherine Foundation. With his wife Tania, he attended events in Geneva and London, rarely missing a lecture or dinner, even in the last months of his life. Georges battled cancer courageously, making light of the long odds against his survival. He compared himself to a car with too many miles on the odometer and no available spare parts. The news of Georges's death was not unexpected, but it was no less distressing for that.

REMEMBERING GEORGIE

Born in Egypt in 1937, my cousin George Rodocanachi spent his early childhood in Alexandria before being packed off to boarding school in Kent at the tender age of nine. Alexandria had been our family hometown for four generations. In 1948 I left Alexandria for Oxford and London, having hardly ever met Georgie as a child.

Aged 14, Georgie was switched from his school in England to schools in France, where he passed his *baccalauréat*. He studied law at the Sorbonne for a year before returning to Alexandria to work in the cotton business with his father, Kostia. In 1960 Georgie married Simone Nahas, whom he had met in Alexandria. Georgie and Simone set up home in Geneva, where their daughter Carol was born in December 1962. Georgie decided to study the hotel business, attending first the *école hôtelière* in Stresa, followed by the Geneva equivalent, Le Vieux Bois. There followed apprentice *stages* at a number of hotels.

Georgie and Simone lived happily together for nearly 30 years, until Simone's early death from lung cancer in 1991.

With a seven-year age difference between us, I had barely known Georgie in my boyhood in Alexandria, and there was little opportunity to see him after that, apart from brief meetings in London. There were, however, two memorable occasions when we were able to get together for rather longer. In December 1984 my father arranged a ten-day Nile cruise for family and friends. There were 32 family members, including Georgie, Simone and Carol, and 13 close friends. Christmas Eve was celebrated in fancy dress on board the cruise ship, anchored in Luxor. In high spirits, Georgie turned up masked and dressed as an oriental belly dancer. To our great entertainment he took to the dance floor with our cousin Marina Lascaris, decked out in the same way.

Nine years later Georgie was *témoin* at the wedding of his Brazilian friend Paulo Barthel-Rosa, a Director at GATT. It so happened that the *témoin* for the bride, Jany Grandjean, was Tania Tang, with whom Georgie fell promptly in love. Seven years would pass before Georges and Tania's own wedding (and my second memorable reunion with Georgie) in the medieval village of Mesta on the island of Chios, home of the Rodocanachi family. The wedding ceremony took place at the beautiful church of the Archangels Michael and Gabriel. The lovely wedding reception was held in the village square overlooked by the church, the odd friendly villager dropping by to join in the fun, making it an altogether unforgettable wedding.

My wife Jacqui and I moved to Switzerland in 2005. It was here that we really got to know Georgie and Tania. It was here, too, that I found my younger cousin to be the most gentle, kind and generous relative and friend one could possibly wish for. Georgie had one further attribute I have not yet mentioned, and that was pluck. Born with impaired eyesight, he never complained nor allowed his handicap of aniridia to detract from the full, adventurous and challenging life he led.

Georgie and Tania visited Saint Catherine's Monastery in Sinai in 1996. They had set off from Sharm El Sheikh in the early hours, arriving in time to make it to the top of Mount Sinai on camels by sunrise. After visiting the monastery, Georgie became, and remained, a staunch supporter of the Saint Catherine Foundation. Georgie and Tania also visited the spectacular Hermitage of Santa Caterina del Sasso, standing precariously on the sheer cliff-face of Lake Maggiore, opposite Stresa. The Hermitage is reached down a zig-zag stairway of 268 steps, and the climb back to the top must have been a good deal more strenuous than their ascent of Mount Sinai.

In February 2013 my elder brother Nolly died of cancer. Making a supreme effort, Georgie, already gravely ill himself, attended the funeral in Rougemont. The following month, on Tania's birthday, 18 March, Georgie and Tania commemorated twenty years together. Soon after, Georgie was in hospital. He passed away on 21 May.

MARKE ZERVUDACHI

‘THE MONASTERY IS OUR HISTORY’: DEVELOPMENT, CHANGE AND CONTINUITY FOR ST KATHERINE’S BEDU

HILARY GILBERT

I had been explaining to a former British diplomatic couple that my husband and I live and work for part of each year in St Katherine. During a tour of duty in Egypt in the early 1960s they had visited Mount Sinai. Then, the great fortress monastery was the sole building in a biblical landscape dotted with Bedouin tents, flocks and gardens. ‘So do you stay with the monks?’, they enquired in surprise. In their recollection no other accommodation was possible. The modern St Katherine we live in was beyond their imagination – a bustling Egyptian town where government streetlights, stucco villas, hotels and neon-lit shops increasingly eclipse the modest stone homes of the Bedu.

The Israeli Occupation following the Six-Day War of 1967 saw the onset of development in South Sinai, and the emergence of St Katherine as an administrative centre and Bedouin settlement. With the return of Egyptian rule in 1982 that development accelerated rapidly, but the mass tourism industry that grew up was serviced not by Bedu but by incoming Egyptian workers. The prosperity created by South Sinai’s tourism has left most Bedu behind. St Katherine’s resident Jebeliya tribe, who have made their lives here for 1,500 years, are dismayed by the changes of the past half-century. ‘There are too many people in St Katherine now,’ an elderly sheikh told me. ‘There is no oxygen. We cannot breathe.’

Since 1986 my husband, his colleagues and students have studied the unique ecology of the St Katherine Protectorate, including the iconic Sinai Baton Blue – the world’s smallest butterfly – and the complex interactions of fauna and flora in wadis surrounding the monastery. His recent work supports Bedouin herding practice, long blamed for destructiveness, and paves the way for radical changes in conservation policy. Meanwhile, nearly three years’ living in Egypt sparked my anthropological interest in the Bedu. I started to study the impacts of the rapid development we had observed at first hand.¹ As our understanding grew of the entrenched disadvantage experienced by Bedu in modern Egypt, it felt clear that research alone was not enough. I explain below how, working with Egyptian and Bedouin partners, we established a community foundation for South Sinai to support and encourage local people to improve their quality of life. How social and ecological changes have come about in St Katherine, and how the Bedu can be helped to negotiate their impacts, is now the subject of our integrated programme of research and practice. However, integrated approaches to living are of course nothing new in St Katherine.

¹ For my PhD research at the University of Manchester, working with my Bedouin colleague Mohammed Abu Khedr al Jebaali, between 2007 and 2010, I interviewed in Arabic 122 individuals, mostly in their own homes in ‘urban’ St Katherine and its rural hinterland, and surveyed the household economics of 84 families.

Monks and shepherds: an abiding partnership

Saint Catherine’s Monastery and its treasures are so intrinsically absorbing that it is easy to overlook the social partnership that has permitted its continuous occupancy for 1,500 years. However, many people with an interest in the monastery will know the story of the Jebeliya tribe, ‘the Mountain people.’ They are held to have been sent from Wallachia, in modern Romania, by the Emperor Justinian around 529CE to serve and protect the monks. Gradually they established themselves as a distinct tribe among other South Sinai Bedu, eventually converting to Islam.

Nonetheless, until the eighteenth century some held to their Christian origins, and Bedu of Arab descent refused to marry them, describing them scornfully as *ruumi* (‘Byzantine’, hailing from the Greek world). But why should Justinian have sent the desert fathers help from so distant and dissimilar a place? It can be deduced from early sources that the founding members of the Jebeliya tribe were in fact Vlachs (from which the name ‘Wallachia’ is derived): hardy, mountain-dwelling shepherds, soldiers and traders from across the Balkans and northern Greece. Supporting this argument, Vlachs have traditionally served and protected the Orthodox monasteries of Greece, including Mount Athos. It is not clear whether Justinian exported an existing trend or established a new one, but a pattern of interdependence between religious and pastoralists took shape in Sinai and still shapes its human geography. The new arrivals (*sebiya*, ‘servant’) were quartered near the monks in what is still the settlement of Wadi Esba’iya; their other settlement, known in oral tradition as ‘Hrazim,’ is likely to be modern Kharazein, north-east of the monastery. Genetic research by our group confirms the social isolation of the Jebeliya, demonstrating that their gene pool is among the most restricted of any people on earth. While some genetic studies have cast doubt on the European origins of the tribe, much research remains to be done. The existence in one of the tribe’s founding clans of a small, specialist vocabulary said to date back to its Latin origins is a further research strand waiting to be unravelled.

While its origins may never be perfectly clear, we know that as a people the Jebeliya have co-evolved in this hyper-arid climate with the monks, who in return for protection, labour and supplies have provided the tribe with bread and wages. Other tribes have historically shared the Jebeliya’s privileged position: today the ‘Awlaad Sa’iid share access to work, transport and escort rights, with conditions of service continually renegotiated, and guiding work systematically allocated to ensure fairness.

Traditional Bedouin livelihoods

This symbiosis produced a Bedouin way of life of which the key features varied little until the late twentieth century. Its core elements were semi-nomadic herding and a unique Byzantine orchard horticulture. These were supplemented by other occupations to earn money for goods not locally obtainable.

South Sinai Bedu traditionally relied upon mixed flocks of goats and sheep for a substantial share of their living. In early summer flocks would be moved up to summer grazing

ranges, extended families moving frequently with their few material goods and easily dismantled tents woven by women from their own wool. Detailed knowledge of different wadis and elevations, each with its characteristic vegetation and water supply, was used by Bedu to maximize benefits from their surroundings. Taking the flocks out to pasture was traditionally a job for women and girls, and the wadis around St Katherine would be filled, morning and evening, with the sound of bleating, chatter and laughter as the girls walked their charges to pasture.



A typical small mixed flock.

Historically, South Sinai pastoralists grazed their flocks all year round, needing only occasional winter fodder. Their semi-nomadic way of life in this marginal terrain was formerly made possible by controlling access to its sparse resources. Small, highly dispersed groups travelled between sites, moving on before vegetation and water were depleted. Tribal agreements covered access rights to grazing land, seasonally restricting forage but allowing reciprocal use of pasture in times of need. Where abundant livestock left areas vulnerable to overgrazing, Bedu imposed controls, no grazing of summer pastures being allowed in winter on pain of a heavy fine. The Bedu call these regulations *helf* ('a pledge'); their rotation systems, still annually renewed by their sheikhs, ban grazing or fodder collection from entire wadis, thereby supporting the ecosystem.

Cultivating orchards is rare among mobile peoples, but in South Sinai Bedu probably learned horticultural techniques from the monks whose gardens they worked. They were cultivated chiefly by the Jebeliya, whose territory in the high massif supports fruit trees more usually found in northern climates. A typical mountain garden might include apples, apricots, almonds, quince, pears, grapes, plums, figs, walnuts and mulberries. The ripening of the first apricots at the lowest elevations would signal the time to move flocks up to higher mountain pastures. At lower elevations dates were cultivated by all tribes, chiefly in the oases of Wadi Feiran and Dahab, and wheat was grown where water permitted. Historically, orchard produce was transported by camel to markets in Suez, el Tur or Cairo. Underneath the trees, making best use of irrigation water, salad and vegetable crops were also grown. Although highly

labour-intensive, some three-quarters of Jebaali families owned a productive garden.

Before 1967, Bedouin household economy relied on these traditional livelihoods. In addition to cash returns from sales, sheep and goats provided valuable protein from milk, cheese and (more rarely) meat. They provided wool for rugs and tent panels, hides for carrying water, and any number of practical daily uses. Livestock constitutes capital wealth for Bedu, so meat has never featured frequently in the traditional Bedouin diet, which consisted largely of vegetables, dairy proteins and staple starches. In the past most Jebeliya could expect a sparse but fairly nutritious diet: good quality water from the mountains, fresh milk in season, dried dairy proteins out of season and home-grown fruit and vegetables, fresh or preserved. Coastal tribes had dates, and supplemented their diet with fish. Cereals, as well as tea, coffee and sugar, oil and lentils, remain essential commodities which are not locally produced. While in times of hardship the monastery has supported local Bedu with a 'dole' of bread, purchase of other commodities required cash from labour or trading.

The Bedouin economy has always included paid work, judiciously combined with core livelihoods to provide not merely subsistence but an active strategy for minimizing risk. Herding and gardens were not merely an insurance policy for when unreliable paid work failed; maintaining both enabled Bedu to be an integral part of the wider market economy, and ensured a meagre or modest living for most. Various occupations are recorded in South Sinai, apart from guiding pilgrims and working for the monastery: for example charcoal manufacture, camel transport, and hunting and fishing in order to trade. When legal work faltered some Bedu turned to smuggling – and latterly growing – drugs. Involvement in narcotics has demonized the Bedu in Egyptian public opinion; however, we are consistently told that they resort to it from extreme need and would abandon it at once if alternatives existed. Our current research confirms that in many affected areas there is virtually no other work; one community of 80 houses, in 2013, had only four men in legitimate paid work. The knowledge that drugs are *haram* – forbidden in Islam – as well as illegal makes Bedu doubly reluctant to support their families in this way.

Development and its effects

In 1967 the Israeli Occupation of Sinai brought the peninsula into a modern, inflationary economy. While many aspects of development were welcome to the Bedu – schools, clinics and regular paid work – others led to irreversible changes in their way of life. Principal among these was sedentarization. Many jobs were at the coast or in Israel: to access transport and services, or work in administrative centres like St Katherine, Bedu had to settle. Natural grazing could not cope with the resulting pressure from their flocks. Bedu responded by de-stocking, but soon a typical flock had fallen well below the size needed to support a family, and required expensive bought-in fodder. Within ten years, herding became unviable. Meanwhile those employed as

migrant workers were unavailable to dig wells and tend gardens, so a quarter of gardens were also abandoned. Rapid inflation raised the cost of living between five and ten times, and families became entirely dependent on paid work.

Throughout the Israeli Occupation the supply of paid jobs outstripped demand. However, when Egyptian rule returned this changed. Like nomadic pastoralists everywhere, Bedu have always been viewed as suspicious – as ‘not really Egyptian’ – by Egypt’s settled population. As a result, the rapid commercial development of Sinai – until recently providing one-third of Egypt’s tourist revenue – was serviced by migrant workers bussed in from the Nile Valley. Mainland Egyptians regard the culturally and ethnically distinct Bedu as ill-educated and troublesome, and do not employ them: in 2002, of some 20,000 jobs created by hotels in Sharm el Sheikh, next to none were given to Bedu. In St Katherine, guiding pilgrims and tourists has always provided work for Jebeliya men: on average, twice as many interviewees in areas outside St Katherine had no work, rising to nine times in places. Women in St Katherine have had access to two handicraft projects, one supported by the Monastery’s Patra Musi. However, one project folded in 2013, and the apparent security provided by tourism has proved precarious: at present no tourists come to buy crafts or climb the Mountain. Stable, regular jobs for Bedu appear far-off. Asked at a public meeting in 2011 to improve their employment prospects, the Governor of South Sinai responded, ‘Jobs for Bedouin? How can I create jobs for Bedouin? What can *they* do?’

Three decades of such discrimination have resulted in poverty, both relative and absolute. While a few Bedu manage to adapt and do well, in 2007-08 more than 50 per cent of our interviewees were in casual jobs that typically paid 300 LE (\$50/£27.50/€32) per week or less *when they had work* – barely enough to keep a South Sinai household averaging eight members on US\$1 per person per day. At this level households may be ‘chronically hungry, unable to access health care, lack the amenities of safe drinking water and sanitation...and basic articles of clothing such as shoes². Especially where there is only one earner, living standards for the poorest families I visit could be described in just this way. Even using a generous estimate of eight months’ work per year, the household of a typical unskilled worker in the wadis was surviving on just 67 cents per person per day, well below the extreme poverty standard. The United Nations Development Program (UNDP)³ records just 5.3 per cent of inhabitants of Egypt’s desert areas as poor. Our data suggest that in South Sinai this underestimates the problem by a factor of ten. More than half our interviewees lived in poverty, unrecorded in the official statistics.

Meanwhile, food price inflation in Sinai rose by double the government’s estimate: an average 46 per cent, compared to 23 per cent across Egypt. Today, prices

continue to rise while earnings fall or fail. Poverty of course directly affects nutrition. Many products which now have to be purchased – fresh produce, eggs, dairy and meat – were formerly obtained from orchards and flocks without cash outlay. Our household food survey asked people to assess roughly how much they spent weekly on different types of food. While most can now buy some non-staple products, people in poverty still buy only basics. Eleven per cent of St Katherine and 37 per cent of rural households generally buy only staples unless work brings in extra cash. A Tarabin father of four commented, ‘If I have money I buy food. If not, just flour for flatbread and a half-kilo of lentils. If there’s anything left at the end of the month I might buy a kilo of meat.’ In 2013 I have interviewed whole families subsisting on meagre quantities of bread, potatoes and tea. When compared to mainland Egyptians, Bedu experience almost double the rate of government-defined food poverty: 80 per cent, compared with 44 per cent⁴.

Bedu are barred from the Armed Forces. Education is poor or non-existent: 44 per cent of Bedouin adults have had no education at all, compared with 7 per cent of Egyptians, and professional Bedu are almost unknown. Many lack electricity and accessible water. With healthcare poor, unaffordable or absent, and a heavy-handed security presence, Bedu feel with good reason that their country is failing them.

The Community Foundation for South Sinai: step by step towards change

The Government of Egypt does not census Bedu or assess their needs as a separate group. As a result, their experience is not reflected in published indicators of human development such as the Millennium Development Goals. Their inaccessibility to Cairo-based researchers means Bedu fall through the gaps of data-collection: for example, UNDP Human Development reports cite South Sinai as having the best provision of doctors outside Cairo. In fact, outside the main conurbations no healthcare at all is available to most Bedu, many of whom still rely on herbs and red-hot nails. This failure to record Bedouin needs means they are not addressed by policy makers or aid agencies: one major international charity told me they did not work in South Sinai ‘because the people aren’t poor enough.’ As a result, nothing changes. Yet to anyone who has visited South Sinai and talked to its people, their material need and lack of opportunity are self-evident. It seemed to us that the first step was to gather good evidence about the issues, giving rise to my PhD research. The next step was to create a suitable means to facilitate change.

We chose the community foundation model because I had seen, over many years of involvement, how effectively it can provide sustainable and inclusive community support. The past quarter-century has seen this model spread rapidly, from historic roots in North America, into every continent except Antarctica. A community foundation provides a

² Sachs J (2005) *The End of Poverty* p20

³ The UNDP periodically produces Human Development Reports tracking Egypt’s progress towards the Millennium Development Goals.

⁴ We suspect that families who maintain traditional livelihoods may be in a better position than those who have abandoned them: our current research investigates possible links between child nutrition and retention of flocks and gardens.

vehicle through which donors with an interest in a geographical area can fulfil their philanthropic aims. By managing endowed funds, the foundation creates permanent income for grant making to causes chosen by donors, or that meet priority needs in its community. By allocating a percentage of annual income for administration, once it reaches a given size it can operate sustainably, independent of government or external funding constraints. This independence enables it to address issues considered too local or unpopular to appeal to other funders.

We realized that the key factors for a successful community foundation were in place in South Sinai: material need, available wealth, and a constituency of people committed to it for its unique religious, cultural and natural heritage. In 2006, after 18 months' consultation, the Community Foundation for South Sinai was registered in el Tur⁵ with a board including British, Egyptian and Bedouin trustees. It was the first community foundation in Egypt – *al mo'assessa-t-al abliya lijanoub sina* (referred to in what follows as 'the mo'assessa'). The mo'assessa has grown slowly by design: using a natural simile that accords well with the outlook of those we work with, we say we have planted a seed, and are watering it slowly so it puts down strong roots. We trust it will grow in time into a shady tree that will outlive its founders and help many people.⁶



Father Michael joined us at the launch of the mo'assessa.

Our aim was (and remains) to create a sustainable, endowed fund to support Bedouin communities through Bedouin-led activity. We take pride in our record of promoting Bedouin agency and participation; but fund development is proving more challenging in Sinai than in the socioeconomic climates in which the model evolved. Our initial plan to raise endowed funds has not been abandoned but deferred in recognition of a financial crisis that erodes endowment income, and a political crisis that exacerbates tensions between Egyptians and Bedu. Egyptian donors willing to invest in Bedouin development are thin on the ground; international donors are put on edge by negative media coverage of Sinai; and most Bedu cannot dream of donating at the level needed to build

⁵ El Tur # 2006-02

⁶ In 2009 we established a UK-registered partner charity, the South Sinai Foundation (Registered charity number 1128955) to facilitate international operations. See www.southsinaifoundation.org.

endowment. However, small-scale local donors are on the increase, and many more contribute in time and kind according to local norms, as happens in other poor communities. We therefore spend the limited assets we have, while remaining fully committed to rebuilding them in future.

The dearth of NGOs in South Sinai⁷ has meant a further shift of approach, doing less grant making than a 'standard' community foundation and more hands-on development. Aiming for an evidence-based approach to practice, our activity and spending priorities have emerged from our research, as well as constant contact with local people. Much of our spending has supported work to improve access to water in this hyper-arid desert region, primarily through building and improving wells. We give regular educational bursaries, permitting Bedouin children to attend school; pay medical bills for many people in hardship; deliver flood relief, veterinary care and food parcels in Ramadan; and undertake small-scale projects helping people improve their livelihoods, such as teaching women to make felt from their own wool and building a community olive oil press. We have started a livestock bank (a small flock is now managed entirely by congenitally deaf Bedu), and a women's chicken co-operative. This year we have helped people establish market gardens in two villages, and are currently investing in olive saplings for 200 hard-up young families across the region so they can provide for their children in future. Some of this work is funded from our own resources, some from funds raised by the board from both Egyptian donors and visitors to Sinai; and some from grants. This support has been critical in helping us to build capacity and professionalize our operation, so that, while we remain a very small body, we punch above our weight.



Seventy families now use the mo'assessa's oil press.

However, the 2011 Revolution also revolutionized the mo'assessa's operation, expanding our work and its impact. In the liberalized climate of the Arab Spring we ran community meetings in 75 locations across South Sinai,

⁷ Egypt is thought to have 16,000-18,000 NGOs, some 53 of which are registered in South Sinai. Most are inactive.

encouraging men and women separately to speak up about their priorities and needs, and informing them of their rights as citizens. We also held signed meetings attended by 400 deaf people, the first of their kind. Many Bedu were not registered as citizens, and, by stationing Bedouin volunteers in registration offices, we encouraged them to register. This entitled them to not only much cheaper subsidized food, but also to vote in Egypt's first democratic elections. Some 3,300 people attended our meetings, and 4,230 registered – around 10 per cent of the estimated Bedouin population. Twelve young people decided to stand as candidates, including three girls, and the election returned an unprecedented eight Bedouin MPs out of 12. This was civic participation on a fairly grand scale, in a population previously characterized by disengagement. How was it achieved? By being entirely Bedouin-led: ably managed by Mohammed Khedr, our Bedouin co-ordinator, the programme was run entirely by trained Bedouin facilitators – men and women – volunteers and signers. Bedu responded in their thousands.



All over South Sinai, Bedu were keen to attend our meetings.

We have now developed a network of 28 community link volunteers, who advise us and help us make funding and grant decisions across the region. In St Katherine, our

co-ordinator, trustee and others have formed a small civic committee to relay people's concerns to the authorities – an unprecedented development in democratic engagement with the state. Perhaps the most significant outcome of our meetings has been a growth in confidence: since knowing they are entitled to consideration for government jobs, dozens have applied successfully in St Katherine, including some girls. People are asking for the free primary healthcare to which they are entitled as 'sons of Sinai'. Young people are enrolling in distance-learning courses. This process may be slowed by the current crisis but will not be reversed. As Mohammed puts it, 'The people have woken up.'

The mo'assessa, then, has instigated change as well as charity. Like the Bedu themselves we have had to adapt, regularly reviewing our tactics while keeping our long-term goal always in mind: a Bedouin community in which people can make free choices to improve their lives according to their own norms and values. Our research programmes will continue to seek better understandings of the Bedu and their environment, while through the mo'assessa we work for a better, more equal future for all St Katherine's citizens. But through all this change, how remarkable it is that for 1,500 years one thing has proved constant: the symbiotic relationship between the 'people of the Mountain' and the monks. When the police stood down in the revolution, the Bedu took up arms to defend the monastery. Now, fearing sectarian violence, they are doing so again. 'The Monastery is our history,' says Mohammed. 'We cannot imagine life without it.' Meanwhile the Fathers, concerned for their protégés, strive to protect them from the coming hungry winter. *Plus ça change, plus c'est la même chose....*

DR HILARY GILBERT is Research Fellow in the School of Life Science, University of Nottingham. She is the only British anthropologist currently working with South Sinai Bedu. Her husband Dr Francis Gilbert has led a research project investigating the ecology of the St Katherine Protectorate since 1986. Together with Bedouin and Egyptian colleagues, they co-founded the Community Foundation for South Sinai and its UK-registered partner organization, the South Sinai Foundation.

Select Bibliography

- Gilbert, H.C. 2009. Walking a tightrope in South Sinai: testing the universality of the community foundation concept. *Giving: Thematic Issues on Philanthropy and Social Innovation*. 01/09:139-157.
- Gilbert, H.C. 2011. 'This is not our life, it's just a copy of other people's': Bedu and the price of 'development' in South Sinai'. *Nomadic Peoples* 15(2): 7-32.
- Gilbert, H.C. 2013. 'Bedouin overgrazing' and conservation politics: challenging ideas of pastoralist destruction in South Sinai'. *Biological Conservation* 160 (2013): 59-69.
- Gilbert, H.C. & M. al Jabaali. 2012. 'Not philanthropists but revolutionaries' - Promoting Bedouin participation in the 'new Egypt': a case study from South Sinai'. *Voices on Arab Philanthropy and Civic Engagement Working Paper*. John D Gerhart Center for Philanthropy and Civic Engagement. American University in Cairo Press, Cairo.
- Grainger, J. and F. Gilbert. 2008. 'Around the sacred mountain: the St Katherine Protectorate in South Sinai, Egypt'. In *Protected Landscapes and Cultural and Spiritual Values*. ed. J.M. Mallarach. IUCN, Kasperek Verlag, Heidelberg, pp. 21-37.
- Hobbs, J.J. 1995. *Mount Sinai*. University of Texas Press, Austin.
- Nandris, J.G. 1990. The Jebeliyeh of Mount Sinai and the Land of Vlah. *Quaderni di Studi Arabi* 8: 45-90.
- Zalat, S. and F. Gilbert. 2008. *Gardens of a sacred landscape: Bedouin heritage and natural history in the high mountains of Sinai*. American University in Cairo Press, Cairo.

Other references in the text may be sourced through those listed here.

Any not readily available may be obtained by contacting hilarygilbert@hotmail.co.uk.

INTERPRETING THE SINAI MOSAIC

CYRIL MANGO



Photo CCA - Araldo De Luca.

The great apse mosaic of Christ's Transfiguration in the Sinai church, today partly hidden from view by the tall sixteenth-century iconostasis, raises a number of questions: Most controversially, what message was it meant to convey? And, when and by whom was it done?

In the apse the mosaic illustrates the Transfiguration as described in the New Testament, with Christ in a mandorla revealed to the prophets Elijah and Moses and to three apostles, John, James and Peter. At the top of the wall above the apse are two scenes from the Old Testament which occurred at Mount Sinai itself: Moses loosening his sandals before the Burning Bush and Moses receiving the tablets of the Law from the hand of God. What message

was this mosaic meant to convey to the sixth-century pilgrim? Why was there portrayed in the church at Mount Sinai the Transfiguration which took place on another mountain, that of Tabor in Galilee, in addition to the two Moses scenes that took place at Sinai itself? These two latter scenes are placed very high up on the walls and do not immediately attract the worshipper's gaze, which is directed towards the apse. They are distant both spatially and temporally, the double meaning of the Greek word *anóthen*, both 'from above' and 'from the past'.

To understand the message of the Sinai mosaic we can do no better than read a sermon attributed to Anastasius Sinaites, said to have been a monk at the Sinai monastery

in the seventh century. The sermon, whatever its exact date and authorship, was according to its text definitely delivered, not at Sinai but on Mount Tabor and explains at length the complementarity of the events at the two mountains. The Transfiguration in the New Testament was the fulfilment of Moses' incomplete vision in the Old. On Sinai Moses did not see God face to face; on Tabor he, Elijah and the three chosen apostles were able to see Christ in His divine glory. On Sinai there was a dark cloud, on Tabor a luminous one. On Horeb (Sinai) Moses said (in the King James version), 'I will now turn aside and see this great sight', which in the Greek of the Septuagint reads, 'Parelthōn opsomai to horama to mega touto'. *Parelthōn* means literally 'having gone by'. What did he mean by that? He meant 'after I have traversed my earthly life, after the period of the Law has gone by'. Only then will the great sight of the New Dispensation be revealed on Mount Tabor, and Moses will be there to see it. Furthermore, the Transfiguration was only made known after the Resurrection, for Christ said (Matthew 17.9), 'Tell the vision (to horama) to no man, until the Son of Man be risen again from the dead'.

The Sinai mosaic may be read to reveal further layers of meaning. Moses, for example, is shown growing older in age in each of the three scenes in which he appears. He is in his prime before the Burning Bush, grizzled when he receives the tablets of the Law and very old in the Transfiguration. True to Anastasius's formulation, he has 'traversed' his life before being deemed worthy of the divine vision. Elijah, whose very cave was above the Sinai monastery, wears not only his traditional mantle of sheepskin, but also a thin black belt decorated with white crosslets, the kind of belt worn by Christian monks. He represents, therefore, the archetypal monk, Christian by anticipation, and indicates that the monk, like himself, may attain to the sight of God.

Some of the mosaic work is excellent as in the figure of Christ, some anatomically and compositionally weak. The prostrate figure of St Peter appears to have two left feet and only one arm. The absence in the mosaic of a solid ground line is also disconcerting to the modern eye. Later Byzantine representations of the Transfiguration always include a craggy mountaintop, but in the Sinai church there is only a horizontal strip shading off from green to yellow as it is illuminated by Christ's radiance. While the prophets Elijah and Moses stand securely upon this strip, the three frightened apostles appear to levitate. The kneeling posture of John and James and Peter's prostrate figure require more solid support. It may be that the model the artist was following included the summit of Mount Tabor. Or did he omit it intentionally to make the scene more timeless and less specific topographically?

The second two questions posed at the outset concerned the date and authorship of the mosaic. All the evidence at our disposal comes from the mosaic itself. At the base of the apse is an inscription in dark letters on a gold ground which reads: 'In the name of the Father, the Son and the Holy Spirit this entire work [i.e. the mosaic]

was done for the salvation of the donors [*καρποφορέσαντων*] at the time [or during the tenure: *ἐπί*] of the most reverend Longinus, presbyter and abbot'. This, the main part of the inscription is complete: it starts with a cross and ends with a cross. Then, added on a second line in smaller white letters on a dark ground are the words: 'By the effort (*σπουδή*) of Theodore, presbyter and assistant abbot (*deuterarios*), indiction 14'.

None of the named individuals can be securely identified. The indictional date tells us only that the work was carried out in the 14th year of any successive 15-year tax assessment cycle excluding 550-51, when the abbot was called George, and naturally after the completion of the church building itself (after 548). It could have been 565-66 (the Byzantine year starting on 1 September), 580-81, 595-96 or even later, but most probably before the political upheavals of the seventh century which isolated Sinai from the Byzantine world. The inscription tells us something else: the execution of the mosaic was not, unlike the church itself which was built by the emperor Justinian, carried out under imperial auspices, for that would have been stated in the inscription. It was a local effort financed by private donors and taken in hand by the aforementioned Theodore, who seems to have been awarded less credit than he deserved. For at either end of the inscription are portraits of two contemporary clerics, distinguished by their lifelike features and their square 'haloes' (a convention which indicates that the person depicted was still alive): on the right the abbot Longinus, blue-eyed and heavy-jowled; on the left, not, as might have been expected, Theodore, but a certain deacon John, whose identity remains unknown, perhaps an important donor.

Granted that the execution of the mosaic was a locally financed operation, we may suppose that the artists recruited for the job were drawn from nearby urban centres, not Constantinople, as art historians hasten to assume, but perhaps Alexandria or Palestine. From a purely conventional point of view the work they produced was somewhat uneven in quality, as described above. However, despite the local nature of the project there is notable sophistication in the use of the iconography. I have not dwelt on all the features of the Sinai mosaic that call for theological interpretation, only on those that appear to me certain and unforced. My purpose was to show the layers of meaning that the art of the Early Church produced by very simple means, yet require an acquaintance with Christian exegesis.

PROFESSOR CYRIL MANGO is Bywater and Sotheby Professor Emeritus of Byzantine and Modern Greek Language and Literature, University of Oxford.

SINAI'S APSE MOSAIC: READING LIST

SIMON DAVIES

Sinai's apse mosaic has been the subject of numerous publications. This list of key sources is arranged chronologically, starting with the publication of Laborde in 1830. In addition to articles and books discussing the artistic features of the mosaic, the emergency treatment to consolidate it under the direction of E. Hawkins is cited in: Weitzmann and Anderegg, *National Geographic* 1964; Weitzmann, *Proceedings* 1966; and Forsyth and Weitzmann, *Biblical Archaeology Review* 1978. Features of particular interest, such as early drawings and photographs, are noted below in square brackets.

Léon de Laborde et Linant, *Voyage de l'Arabie Pétrée* (Paris, 1830), pp. 67-68 and pl. 20 [early line drawing of mosaic]

C. W. Wilson and H. S. Palmer, *Ordnance Survey of the Peninsula of Sinai* (Southampton, 1869), p. 205 and pl. VII, 1-4 [lithograph of the mosaic by J. Ferguson after drawing by Corporal Goodwin, Royal Engineers]

R. Garruci, *Storia dell'Arte Cristiana* 4 (Prato, 1877), pp. 78-79 and pl. 268 [Laborde drawing reprinted with figures and busts changed into shadow images]

S. A. Usov, *Mosaics in the Church of the Transfiguration in the Monastery of St. Catherine on Sinai* (in Russian, Moscow, 1879) [features lithograph of the mosaic by Polivanov]

N. Kondakov, *Journey to Sinai in the year 1881* (in Russian, Odessa, 1882), pp. 75ff. [reprints Polivanov's drawing]

D. V. Ainalov, *The Hellenistic Sources of Byzantine Art* (in Russian, St. Petersburg, 1901), pp. 212-213 and pl. III [first photograph of the mosaic]. English translation by E. Sobolevitch and S. Sobolevitch, edited by C. Mango, under the title, *The Hellenistic Origins of Byzantine Art* (New Brunswick, 1961), p. 272 and fig. 124 – here old photograph is replaced by one from the Alexandria-Michigan-Princeton Expedition to Mount Sinai

V. Benešević, *Monumenta Sinaitica Archaeologica et Palaeographica*, Fasc. I (Leningrad, 1925), pp. 3ff. and pls. 2-7 [photographs of the mosaic, with descriptive text by Kondakov]

G. Sotiriou, 'Τὸ μωσαϊκὸν τῆς Μεταμορφώσεως τοῦ καθολικοῦ τῆς μονῆς τοῦ Σινᾶ', *Atti dell' VIII Congresso Internazionale di Studi Bizantini, Studi Bizantini e Neoellenici* 8 (Rome, 1953), pp. 246ff. and pls. LXXIV-LXXXVIII

G. H. Forsyth, 'Islands of Faith in the Sinai Wilderness', *National Geographic*, Volume 125, No. 1 (January 1964), pp. 82-104

K. Weitzmann and F. Anderegg (photographs), 'Mount Sinai's Holy Treasures', *National Geographic*, Volume 125, No. 1 (January 1964), pp. 107-127

I. Ševčenko, 'The Early Period of the Sinai Monastery in the Light of its Inscriptions', *Dumbarton Oaks Papers* 20 (1966), pp. 255-264

K. Weitzmann, 'The Mosaic in St. Catherine's Monastery on Mount Sinai', *Proceedings of the American Philosophical Society*, Vol. 110, No. 6, December 1966, pp. 392-405 (reprinted in *Studies in the Arts at Sinai: Essays by Kurt Weitzmann* [Princeton, 1982], pp. 5-18)

G. H. Forsyth, 'The Monastery of St. Catherine at Mount Sinai: The Church and Fortress of Justinian', *Dumbarton Oaks Papers* 22 (1968), pp. 1-19

G. H. Forsyth and K. Weitzmann, *The Monastery of Saint Catherine at Mount Sinai: The Church and Fortress of Justinian. Plates* (Ann Arbor, 1973), pp. 11-18 and pls. CIII-CXXXIX & CXXXVI-CLXXXVII

K. Weitzmann, 'Loca Sancta and the Representational Arts of Palestine', *Dumbarton Oaks Papers* 28 (1974), pp. 31-55 [text] (reprinted in *Studies in the Arts at Sinai: Essays by Kurt Weitzmann* [Princeton, 1982], pp. 19-62)

G. H. Forsyth and K. Weitzmann, 'Saving the Mt. Sinai Mosaics', *Biblical Archaeology Review* 4, No. 4 (November-December 1978), pp. 16-31

J. Galey, *Sinai and the Monastery of St. Catherine* (Cairo, 1985), pp. 84-86 and pls. 119-136

K. Weitzmann in K. Manafis (ed.), *Sinai: Treasures of the Monastery of St Catherine* (Athens, 1990), pp. 61-66

J. Miziołek, 'Transfiguratio Domini in the Apse at Mt Sinai and the Symbolism of Light', *Journal of the Warburg and Courtauld Institutes* 53 (1990), pp. 42-60

J. Elsner, 'The Viewer and the Vision: The case of the Sinai Apse', *Art History* 17, No. 1, March 1994, pp. 81-102

J. Elsner, *Art and the Roman Viewer: The Transformation of Art from the Pagan World to Christianity* (Cambridge, 1995), chapter 3, esp. pp. 99-124

C. Mango, 'Justinian's Fortified Monastery' in O. Baddeley and E. Brunner (eds.), *The Monastery of St. Catherine*, Saint Catherine Foundation (London, 1996), pp. 71-83

R. Cormack, *Byzantine Art* (Oxford, 2000), pp. 48-53

C. Mango, 'Ihor Sevcenko and the Sinai Monastery', in *St Catherine's Monastery at Mount Sinai: its manuscripts and their conservation*. Papers given in memory of Professor Ihor Sevcenko (London 2011), 1-6.

DR SIMON DAVIES holds a DPhil in Byzantine Art and Archaeology from the University of Oxford.

CONSERVATION OF THE MOSAIC OF THE TRANSFIGURATION AT SAINT CATHERINE'S

ROBERTO NARDI AND CHIARA ZIZOLA



The figure of Daniel pictured here is shown before, during and after conservation. *Left:* Lacunae are plainly visible following removal of the 1847 cement and gypsum filling. *Centre:* New tesserae are inserted and their position mapped on a computer image of the mosaic. *Right:* The figure of Daniel as it appears after treatment.

From the dawn of Christianity, the Monastery of Saint Catherine has been a centre for pilgrimage and worship. This continuity of life has permitted the conservation of the ancient structures and the accumulation of an extraordinary number of historical, artistic and cultural treasures. Inside the monastery's fortress wall stands the basilica, with most of its sixth-century decorative features intact. Among these is the mosaic representation of the Transfiguration of Christ, which covers the apse. One of the most important surviving examples of early Byzantine art, the mosaic is a work of great technical skill and iconographical complexity, made of gold and coloured glass paste tesserae.

The most recent chapter in the history of the conservation of the mosaic began in 2000, when the Getty Conservation Institute in Los Angeles asked the Centro di Conservazione Archeologica (CCA)¹ to carry out a two-week inspection to assess the mosaic's condition. Although we knew something of the splendour and holiness of the monastery, we were stunned by the magnificence of the mosaic, as well as by its precarious condition and the severity of the problem confronting us.

Over the course of 15 centuries, the Transfiguration mosaic has been subjected to earthquakes and dust, the

effects of floods and windstorms, and the smoke of oil lamps, candles and incense. In 1847, the mosaic received the providential care of a monk named Samuel, who inserted metal pins to support sections that were about to fall. He filled the lacunae produced by fallen tesserae, reconstructed damaged sections with false tesserae and protected the mosaic with a layer of shellac and rosin (colophony, or pine resin). The mosaic has survived to our day thanks to Father Samuel and a further emergency treatment performed during the 1958 University of Michigan - Princeton University Expedition to Sinai, when Professors George H. Forsyth, Kurt Weitzmann and Paul Underwood, assisted by Ernest Hawkins, the leading expert in mosaic restoration at the time, mobilized help to save it.²

We soon grasped the true significance of Professor Weitzmann's account of the mosaic and its fragile state, published in the *National Geographic* in January 1964. When we moved close to the mosaic at the top of a wooden scaffold, we discovered that the problem of detachment of the preparatory layers from the underlying granite structure affected more than 50 per cent of the surface. The detachment was so extensive that at first we could not tell whether the movement triggered by touching the mosaic was due to the scaffold's wobbling or to the mosaic's moving. It was actually the mosaic, which rippled like a sail. To make matters worse, the central part of the mosaic, the area corresponding to the face of Christ, was convex instead of concave. It probably was only held in place by the plant fibres inserted into the setting bed and the

¹ Centro di Conservazione Archeologica (Centre for Archaeological Conservation) – Rome is a private company operating on public commission to conserve monuments, works of art and archaeological sites. CCA is based in an ancient monastery to the north of Rome, where professional training programmes in conservation and laboratory activities are carried out. The company, headed by Dr Roberto Nardi, was founded in 1982 by conservators trained in the conservation and restoration of monuments, mosaics, wall paintings and archaeological finds at the Istituto Centrale del Restauro (ICR) in Rome. For more information, see www.ccaroma.org.

² For further information on the expedition, see <http://www.umich.edu/>.

pressure of one tessera against another, propped by the metal pins.

Our initial inspection enabled us to prepare a conservation programme based on a detailed survey of the mosaic. We would consolidate the tessellatum and preparatory layers *in situ*, resolve any structural problems responsible for detachment, and address issues of cleaning and lacunae. From a methodological and organisational standpoint, the project presented a number of challenges. First, there was the nature of the monument to consider: the sanctuary mosaic of a church in use for centuries is experienced, not as a work of art but as a devotional image, a window opening to God and the mystery of Christ. Then, there was the monastic community to think of: the opinions of the Fathers and the monastic rules they live by would have to be taken into account. We would have to accommodate the life of the church, both the monks at prayer and the many pilgrims and tourists who visit the basilica every day, as well as the academics, Egyptian authorities and members of the media who would want to view the mosaic during conservation treatment. The monastery's remote location would pose logistical complications, and the conservation team would have to be managed in a distant and unusual place.

These considerations were as important to our work as those of a scientific and technical nature. Let us examine how they influenced our approach:

The nature of the monument and its context: The mosaic is alive, as is the community of monks to which the mosaic belongs. The community prays around the clock every day of the year, facing the altar and the iridescent mosaic, which reflects light in different ways, depending on the time of day. Once we had removed the patina of dirt and lamp-black from the surface of the mosaic, the Transfiguration was found to be a triumph of reflected light. This obliged us to review the best way to integrate lacunae. It would have been difficult to justify the use of stucco or non-reflective replacement tesserae, simply because this was suggested by longstanding conservation principles.

Perhaps even more important, given the presence at Sinai of a lively, engaged (and highly erudite) community, was the need to enter into a dialogue with the monks. We could not rigidly impose professional choices. We had to allow a constructive approach to develop, so that every choice reflected the opinions of the conservators and the Fathers and ensured that the final result of the work was fully shared by all. Also included in discussions were the members of the Consulting Committee appointed by the monastery, who followed the progress of the work from 2005 onwards (the archaeologist Demetrios Michaelides, conservator Gaël de Guichen, architect Petros Koufopoulos and structural engineer Costas Zambas).

Monastic rules: The rules governing the times of the liturgy, commemoration of holidays, periods of fasting and silence, tidying of the church and presence of women highlighted the need for a type of scaffolding that would

isolate the conservation worksite from the church, allowing work to proceed without interference. The scaffolding we used was designed by Petros Koufopoulos and erected by two members of the monastic community, Father Daniel and his brother, Father Theoktistos. The worksite was entered from outside, at roof level, rather than through the sanctuary. Church services could proceed without interference. Conservation work could continue without interruption, and female conservators (the majority of the team) had free access to an area that would otherwise have been off limits. We were careful not to carry out noisy operations during services. In exchange, we had the privilege of working while listening, twice a day, to the chants rising in prayer from within the church.

The liturgical life of the church: Monks, pilgrims and visitors had to be able to use the church throughout the extended conservation period. The sight of an invasive scaffolding like the one needed for the work would have been disturbing. Consequently, we produced a photomontage of the apse and covered the scaffolding with a life-sized print, completely hiding it from view. Against this backdrop the church looked virtually normal, and many less attentive visitors were convinced that they had seen the real mosaic. Not one of the monks or faithful or visitors ever complained about the worksite.

Official visits: The presence of scaffolding provided academics, the Egyptian authorities and members of the media with a unique opportunity to see the mosaic up close. We therefore incorporated into the project ways to facilitate official visits and the dissemination of information. We set up video cameras in the worksite and linked them to monitors showing the work 'live', including one in the archbishop's reception room. The cameras were always running, allowing everyone in the monastery to follow our progress.

The conservation programme was approved in 2001 by the Synaxis, or Council of Monks, and Egypt's Supreme Council of Antiquities, but four years passed before an event occurred that fully reflected the spirit of peace and tolerance the monastery has practised for centuries: on a visit to Sinai, the Emir of Qatar, HH Sheikh Hamad bin Khalifa Al Thani, met HE Archbishop Damianos, the monastery's abbot, and decided to contribute to the life of this holy place by donating the funds necessary to conserve the mosaic – a Muslim prince intervening to save a symbol of Christianity. Work began in 2005. The scaffolding was transported to Sinai, together with the required equipment and materials, sent previously from Italy. An engineering marvel, the scaffolding was made of prefabricated hollow rectangular metal elements assembled on site. Built on two levels, it had an upper platform with a mobile section that could reach to the top of the arch.

Given the serious detachment of the mosaic, our first task was to prevent it from falling. In the curve of the apse we constructed a device we called the 'spider' (pictured opposite), with a central node and eight radiating arms of hollow



The 'spider' supported the mosaic during consolidation work.

metal terminating in telescoping supports. Completely separate from the scaffolding, the spider was anchored directly to the walls of the church and the base of the mosaic, providing a framework that allowed props to be applied as needed to any part of the mosaic. Had we attached the props to the scaffolding, the vibrations would have been dangerous for the mosaic and detrimental to the proper adhesion of the consolidant. Before beginning the conservation treatment proper, and parallel to the task of documentation, we secured all the detached sections of the mosaic with props attached to the spider. This enabled us to work calmly and safely throughout the treatment process.

We began by gently cleaning the dry mosaic surface. We used a silent rotating vacuum cleaner with two flexible arms and tips as small as a dental suction device. There was no danger of removing loose tesserae, as these were larger than the suction device. We quickly became aware of the first major problem: the presence of a large number of loose tesserae. To stabilise the tesserae we tried out various materials, injected behind the tesserae with a syringe. We found that the best result was obtained by extracting the tessera from its bed and reapplying it on a bed of lime mortar and finely sifted stone powder.

After the first pass to remove dust and loose debris, we proceeded to target residues of lacquer and rosin and the oily deposits produced by candles, oil lamps and incense, applying a solvent mixture to the surface with poultices of Kleenex and paper pulp. Once the deposits were dissolved, we could remove them by scrubbing the mosaic gently with toothbrushes and rinsing with distilled water. The colours of the tesserae returned to their former brilliance, while maintaining the patina of age.

The cleaning slowly revealed the presence of numerous areas of lime and cement stucco painted in imitation mosaic by Father Samuel. The stucco had been applied where there were lacunae and detachments, precisely where ongoing deterioration necessitated further treatment. We therefore had to remove all the stuccoed areas from 1847 and, in the process, use the lacunae as entry points for consolidation – an operation essential to providing the mosaic with its lost stability. The areas to consolidate were carefully prepared: using hand drills, we made small holes in lacunae zones corresponding to detachments; this enabled

us to access the section underneath with the dental suction device and remove pulverised deposits of original mortar. Where the thickness and condition of the mortar permitted, the gaps were washed with distilled water injected by syringe. Once an area had dried, we injected the consolidant, a pre-mixed hydraulic mortar chosen for its light weight and high penetrability and the absence of soluble salts. The operation required great care to avoid weighing down the surface layers, which could have collapsed. We had to give the mixture ample time to set. Starting from the bottom, and using several infiltration points in the same area, we gradually inserted the consolidant until the detached area was filled in. We left as many as three days between one infiltration and the next, so that the water in the mixture could evaporate completely. As the work proceeded, we propped the areas being consolidated to avoid even the slightest movement of the detached layers.

The work of consolidation took three years to complete. It was performed in progressive stages after periods of rest and continuous verification. Once the injected mortar had dried, we returned to add more consolidant to areas where voids remained. However, the centre of the mosaic required a different approach. From the attentions of Father Samuel, we knew that the problem here was already serious in 1847. And from the American intervention starting in 1958, we knew that the monk's efforts had not resulted in a permanent solution. We were afraid that there might be a crack or defect in the granite at the apex of the apse. To investigate further, we decided to open a rectangular 20-centimetre section of mosaic in the area of gold tesserae next to Christ's face. We covered the section with two layers of cotton gauze and cut on three sides to create a 'hinge', which enabled us to lift the gauze-covered section without removing it. Underneath we found red bedding typical of the background for gold tesserae. Once we had covered the bedding layer in gauze, we deepened the cut and lifted the bedding layer as well, finally arriving at the granite itself.



The conservators opened a rectangular section of the mosaic at the apex of the apse to inspect the condition of the granite.

We were able to ascertain that the granite was intact and rule out the existence of a structural problem. At the same time, we established the presence of a highly accentuated detachment, averaging five centimetres, affecting the deepest bedding layer, as well as the presence of heavy deposits of pulverised mortar. The void was so large that we were able to connect the test area to another small opening some 30 centimetres away, created by removing a section of Father Samuel's painted stucco, and insert a micro-telecamera with LED lighting to check the condition of the vault. This inspection confirmed that the vault was intact and that the origin of the damage was infiltrating water which, over the centuries, had percolated through cracks opened by earthquakes, eroding the bedding layers and eventually pooling where the mosaic jutted outwards.

With the picture now clear, we were able to proceed with treatment. We filled the detachment with consolidation mortar; replaced the setting bed with lime mortar, calcareous stone powder and vegetable fibres like the original; and repainted it with red ochre, as before. After resetting the tesserae on the new bed, we consolidated the test area, closed it and removed the gauze. We then proceeded to remove the pins and bars inserted into the vault by Father Samuel, a long and delicate mechanical process. This was necessary because the pins were made of iron, which oxidises and causes damage. We left one pin and bar to document a now-historic conservation treatment of notable quality. We did not remove the pins applied by the American team, first because they are made of copper and could not harm the mosaic; second, because it would have been highly risky, as they are embedded in a thick layer of hard and resistant mortar; and third, because they are located in the most delicate area of the surface and thus contribute to the mosaic's static support. All the attendant stucco and integrations, however, were removed and replaced.

We moved on to the numerous lacunae created by the removal of Father Samuel's old restorations and other losses from the past 150 years. In the project planning phase, we had identified three different options for filling lacunae, leaving the final decision for the moment when cleaning would provide a clearer picture of the situation, and when discussions with the Fathers and the Consulting Committee would reach a consensus. The first option was integration with mortar replicating the level and chromatic tone of the setting bed; the second was to use mortar with the imprint of the tesserae, retouched with watercolour; and the third was to use new tesserae.

After trials and lengthy debate, we chose the third course of action. There were many reasons for this decision:

We are now able to record all treatments performed in actual size, producing documentation of great accuracy. At the time of treatment, tesserae of suitable quality and colour were available on the market.

Only replacement tesserae would provide the mosaic with the response to light that has made it a masterpiece and an instrument of prayer.

Only tesserae respond to ageing like the original.

The Fathers strongly favoured this approach, and the Consulting Committee agreed.

After ordering the material from Venice, we began the lengthy work of integration. Using a palette of 34 colours, we applied the tesserae to a setting bed of mortar similar to the original. We painted the background with mixed watercolours as in the original (red, black, yellow, gray), according to the type of tesserae being applied. We followed the original design to carry out integrations, even copying repetitive lines and filling imprints left by original tesserae on the setting bed; no integrations were ever done by freely interpreting, or departing from, the original design.

The use of new tesserae is a choice that we would probably have balked at only a few years ago. Today, we can allow ourselves to do this thanks to the rapid evolution in documentation techniques. With a precise and efficient instrument such as the digital documentation devised for this project – which is easy to implement and manage – the risk of confusing the original with the restoration is very low. On the contrary, it would have been a mistake to carry out options that did not exploit new technological advances, spoiling the result of the conservation treatment in the name of obsolete principles. Once the physical treatment of the mosaic was complete, we tackled the long task of editing the documentation and publishing the results. All the information gathered, records produced, images, graphic maps and computer materials were streamed to the monastery's library to form a collection that is a reminder of another chapter in the magnificent, centuries-old history of Saint Catherine's.

The conservation of the mosaic of the Transfiguration followed a programme responsive to the technical requirements of the mosaic, the principles of the conservation profession, the expectations of the monastic community, the requirements of the Egyptian authorities, the observations of the Consulting Committee and the needs of the public and the faithful. The best vehicle for all these elements was the programme we devised: dialogue and conciliation were our daily bread, and the results obtained depended on the contribution of all concerned. Perhaps precisely for this reason, we were able to bring a complex operation to a successful conclusion, working in the knowledge that we were honouring our commitment to the mosaic, the Fathers and the monastery's life, to the Emirate of Qatar and, above all, to the spirit of tolerance between peoples, religions and cultures that has marked the monastery for fifteen centuries.

DR ROBERTO NARDI is the Director of the Centro di Conservazione Archeologica (CCA) – Rome. An archaeologist and conservator, he received his degrees in archaeology at the University of Rome and trained in conservation at Rome's Istituto Superiore per la Conservazione e il Restauro (ISCR).

CHIARA ZIZOLA is Senior Conservator and Project Manager at the Centro di Conservazione Archeologica (CCA) – Rome, where she has worked since 1989, most recently leading projects in the Middle East. She is a conservation graduate of the Istituto Superiore per la Conservazione e il Restauro (ISCR) in Rome.