



SFF

Journal of the RSM Senior Fellows Forum

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Editor: Catherine Sarraf.

SFF Committee: Dr Jeffrey Rosenberg (Chair), Dr David Murfin, Group Captain John Skipper, Mr Ian Stephen, Dr Catherine Sarraf, Dr Judith Foy, Dr Jane Reeback, Mrs Sue Weir, Dr Michael O'Brien, Mr Michael Kelly, Mr Harvey White, Dr Isobel Williams, Professor David Goldsmith, Professor Clara Lowy, Professor Andrew Harris

Editorial Board: Catherine Sarraf (Editor), John Skipper, Ian Stephen

Please address all correspondence by email to the Editor
alison.catherine872@gmail.com:

or: The Editor, Senior Fellows Forum, Royal Society of Medicine,
1 Wimpole Street, London W1G OAE

Editorial

Catherine Sarraf



At the moment of writing, our world is in a state of political chaos! Our 'friends' seem to have betrayed the vanquished. We are still an island but now depending on our European neighbours we seem to have abandoned five years ago. Climate change seems to affect us more than ever and in this issue Alyssa Gilbert's lecture to us is faithfully written up by Clara Lowy. As ever, all our lectures sweep wide in their topics, and will continue to do so for the rest of the session. The journal keeps a clear record of our (stunning) activities – internal events, external events both walks and visits and the Camera Club. We are deeply grateful to Jane Reeback (lecture organiser), Sue Weir (Blue Badge Guide and historian, thus expert at organising our visits and walks) plus Richard Lansdown and others at the Camera Club. The journal in a very real sense is our Archive.

Perhaps you might have wondered about who writes up our activities for the journal – it is YOU! We very much welcome volunteers for writing our Articles and Reports, please volunteer! For those who attend our marvellous walks, we have a particularly difficult task in selecting who should write the event up. Neither Sue Weir nor I (and indeed none of the other participants) have any idea who is going to attend, until the morning of the event, when a list is finally provided. Thus, it is why we seem to spring the task on a likely looking walker to take notes and submit the Report! Please volunteer! We are very grateful indeed to Jeffrey Rosenberg, Ann Ferguson, David Goldsmith, Robin Williamson and Clara Lowy (again) and to our two gimlet-eyed proof readers, John Skipper and Ian Stephen who render the final version of each issue to perfection. We also rely on Harry Brown to setup our pages.

Sadly this time, I need to provide a final thanks to Amanda Husak our recent administrator, who is leaving us for pastures new. We wish her well in her new position and welcome her replacement.

Catherine Sarraf

Editor

Forthcoming Events

Programmes

Internal Events

Jane Reeback

2025

- 17 April** **Shane O'Rourke,**
Grand Duchess Elena Pavlovna and Princess Isabel and the freeing of serfs and slaves
in Russia and Brazil
- 15 May** **Judith Foy,**
Art and medicine: a historical trawl through the pathology we can find on the museum wall
- 19 June** **Sir Jim Smith,**
Two hundred years of science and conservation

External Events

Sue Weir

(Please contact Sue if you have any queries: **Tel:** 07713 402651 **Email:** sue.weir@btinternet.com)

Visits in 2025 - dates for your diaries

- 2 July** Private tour of Chelsea Physic Garden
- 24 September** Private tour Royal Hospital Chelsea
- 27 October** Private tour of Spencer House, St James's, London

Walks in 2025

- 29 April** Finding more hidden green spaces in the northern edges of the City
- 30 May** Still waters & new buildings around Paddington Basin
- 25 June** Finding the lost hospitals in Covent Garden
- 17 July** Exploring the squares, small streets and the village atmosphere of Kensington

Camera Club 2025

Richard Lansdown

Times of meetings 11am, location - the seminar suite, library RSM.

- 8 April** **Members' Meeting**
- 21 May** **Talk by Derek Medhurst on stereo photography**
- 9 June** **Presentations by Andrew Gasson (Title tba) and David Wortley
on panoramic photographs**

Abstracts and biographies of speakers

Grand Duchess Elena Pavlovna and Princess Isabel and the freeing of serfs and slaves in Russia and Brazil



by **Shane O'Rourke**

17 April 2025

This talk will examine the pivotal role of two royal women in the emancipation of serfs in Russia in 1861 and slaves in Brazil in 1888. These two women were critical actors in the great drama of emancipation, but their contribution has largely been

forgotten. In an entirely male dominated political sphere these ladies through a combination of moral conviction, political intelligence and courage were able to decisively influence the course of emancipation in both countries. Female agency, politics and power will be the central themes of this talk.

Shane O'Rourke is a specialist in Russian and increasingly Ukrainian history, who has written in the past on the history of the Cossacks, Imperial Russia, Ukraine and the Soviet Union. He teaches in the History Department in the University of York.

Art and medicine - historical trawl through the pathology found on museum walls



by **Judith Foy**

15 May 2024

There has always been an interface between art and medicine: our births, deaths, diseases and all the vicissitudes of life have at some point been the subject of artists. As Vesalius, one of the most important early anatomists, observed,

'Illustrations greatly assist the understanding, for they place more clearly before the eyes what the text, no matter how explicitly, describes'. There is much pathology to be seen in the pictures on the walls of our art galleries. In this talk, you will have the opportunity to examine what can be found in the early anatomists from Galen to Damien Hirst, from Rembrandt to Henry Tonks. Art examines life in all its dimensions and endeavours to cast light upon the human condition.

Dr Judith Foy qualified at The Welsh National School of Medicine when there were quotas for women students, a concept unthinkable today. She trained in Anaesthetics at St. Mary's, Paddington then returned to Cardiff Royal Infirmary as a Research Registrar to Prof Mike Rosen in

obstetric anaesthesia and analgesia. She had two children early on then as a Senior Registrar went to Boston, USA for a dazzling year learning monitoring with the Swan Ganz catheter and exposure to the sort of massive trauma unseen in Cardiff. On her return she became a Consultant and took on Intensive Care for several years until she had her third child and moved to Cardiac Anaesthesia. At the same time she was the director of the Pain Clinic for 10 years which took her to New York. There she was involved with triage when 9/11 struck. On retirement she indulged her interest in the Arts by involvement with the Contemporary Art Society for Wales as Lecture Secretary. She is on the Board of Trustees for the Friends of the National Museum of Wales. In 2022 she was President of the History of Medicine Society of Wales.

The Zoological Society of London: Two hundred years of science and conservation



by **Sir Jim Smith**

19 June 2025

Jim Smith is a globally recognised developmental biologist whose research has focussed on inductive interactions in vertebrate development and on applying the principles of developmental biology to stem cell differentiation.

Most recently he and his colleagues have developed techniques to generate highly mature left ventricle-like cardiomyocytes from human pluripotent stem cells.

Jim's previous roles include Director of the Wellcome Trust/Cancer Research UK Gurdon Institute and Director of the MRC National Institute for Medical Research (NIMR), where he oversaw its transition to the Francis Crick Institute. He has also been Deputy CEO and Chief of Strategy at the Medical Research Council, and Director of Research and Group Leader at the Francis Crick Institute. Most recently he has been Director of Science and Director of Research Programmes at Wellcome, where he was responsible for establishing Wellcome's science strategy. He has a distinguished career in scientific research as a Fellow of the Royal Society (1993), a Fellow of the Academy of Medical Sciences (1998) and a member of the Academia Europaea (2000). He has also been awarded the EMBO Medal (1993) and the Waddington Medal (2013). Professor Smith was knighted in the 2017 Queen's New Year's Honours list. Two years ago Jim joined the Council of the Zoological Society of London, where he is now President, keen to help shape a world in which people and wildlife thrive.

Meetings reports

Paul Klee: how he documented his own scleroderma in his art



Tod und Feuer (Death and Fire). The letters T and D make up the features of his face. To the right, he is walking towards a fire.

On the 21st of November 2024, Alan Silman, Professor of Musculoskeletal Health (with a special interest in scleroderma), delivered a fascinating lecture to a large hybrid audience. The story of Klee's life has much emotion attached to it, awe at his artistic brilliance, amusement at his humour and great sadness at his end. It is a story unique in the way he portrayed his illness in his art. Paul Klee (1879 – 1940) was born in Switzerland to a German father, an accomplished violinist, and a Swiss mother, an opera singer. In 1906 Paul Klee married a musician who was always very supportive of his work. They had one child, Felix.

In addition to his art, Paul was a poet, showing maturity of style - but his poems were published only after his death. From an early age he was a prolific diarist and documenter; he noted every one of his nine thousand artworks in a book, *Creative Confessions* describing what occurred within his head when he was working. He also was a talented violinist, good enough to play part time in the Bern Symphony Orchestra. He drew extensively as a child and was technically accurate. By the age of eight he demonstrated a great talent for drawing and at sixteen was signing his drawings. He studied at Munich Academy and wrote on how to make a good artwork in *Pedagogical Sketchbook*. By 1905 he was recognised as a great artist and a major figure in the development of German art. His initial works were almost playful, for example *Pianist in*

Need - he wanted his work to make us smile. Colour was important to Klee and in his sketchbooks he described what colours should go next to each other; he became particularly infatuated with colour on a visit to Tunis. He joined the Blue Rider group in 1911, when he became and remained good friends with Kandinsky. The group broke up at the start of the First World War.

The German Kaiser was keen to protect young talent, so in the First World War Klee was deliberately given a desk job so he could continue to paint. These paintings, of which there are one hundred and fifty, did not glorify war. *Death for an Idea* and *Angular Zig Zag Movements* show the horror of war. In 1920 after the Kaiser's abdication, *Der Grosse Kaiser* mocked the Kaiser. Klee taught at the Bauhaus from 1921 to 1931, and this is probably his most important period. After he joined that, he wrote nine volumes in which he described drawing as 'A line going for a walk'. He continued to convey movement and drama and demonstrate his ability to use colour and shapes to convey emotion. He was capable of producing images with very few lines or sometimes blocks of colour. Paul Klee had one implacable enemy, Hitler, who believed that everything Klee did was wrong. Hitler hated Klee and accused him of being a Galician Jew, although he was neither, resulting in him fleeing to Bern in 1933, where he then expressed his disdain for Hitler in *Caricature of Hitler*. Hitler held the Degenerate Art Exhibition in 1937, which became the most popular art exhibition of that time attracting two million visitors. However, seventeen books by or about Klee were burnt.

The pathological appearance of scleroderma, literally 'hard skin' was described in Egyptian writings in 4,000 BC and the term 'scleroderma' was coined by Hippocrates; the first recent case was described in Naples two hundred and eighty years ago. Being affected with scleroderma causes hard thickened skin, tightness of the mouth, difficulty in swallowing and detracts from food absorption in the gut, leading to intractable diarrhoea. Blood vessels, kidneys, lungs, muscle and the heart become involved. It is a very nasty disease, and there is still very little effective treatment. Klee's own scleroderma was diagnosed in 1935, and he responded to it in the way he knew, by his art. He developed fatigue, inflexible fingers and discolouration of the skin, but gut involvement was a particular problem, with his difficulty in swallowing and severe diarrhoea. He had to give up playing the violin, but his art output increased to a maximum in 1937, and the frustration of his symptoms were expressed in his drawings which became more linear, with shorter brush strokes. Examples of his

handwriting were shown in our lecture, demonstrating deterioration both in size and legibility.

Klee used his art to express frustration with his illness, and in 1939 he was producing four outputs a day *Never again dish* expressed the horror he developed for food, because of the awful diarrhoea, *Endure* expressed that his physical being was being destroyed. *Forgotten Angel* showed the effects on hands and mouth and *Captive in skin* is an expression of his feeling of captivity (although even here, the background is still colourful). It is very moving to compare these productions to his early work. He drew to show what it was like to be on the verge of death. In *Embrace* the eyes show fear of his impending death, while *Tod und Feuer* shows him walking towards his death with his facial features made of the letters T and D. During his extremely protracted illness, his wife and family were very supportive, and after his death wrote the Catalogue Raisonné; his archive is in the university in Bern.

During questions at the conclusion of the lecture, it was suggested that Klee did not fit into any one of the movements in art of that period but embraced all the 'isms', not allowing himself to be compartmentalised. Also, followed the comments:

- Klee continued to be able to handle paintbrushes and drawing, but his arm movements, so important to a painter were badly affected.

- His colour palate did not change but he made more drawings than paintings.

- Referring to his mental state, some of his photos and paintings show fear.

- The disease did not affect his eyesight.

- His colour palate did not change with disease but had widened from that of his earlier life.

- He did not have synaesthesia, and his illness did not appear in his poetry.

- There has been an unsubstantiated suggestion that his scleroderma may be due to frequent exposure to white spirit.

- Treatment for this condition is still poor.

Ann Ferguson

Recent Advances in Medicine and Surgery

RSM Senior Fellows Forum Meeting, December 5th 2024

Session 1

Chair: Dr Catherine Sarraf

The role of the obstetric physician

Dr Lucy MacKillop BM BCH MA FRCP FRCOG ad Eundem

Dr MacKillop is a Consultant Obstetric Physician from Oxford University Hospitals NHS Foundation Trust, with wide scope at the Nuffield Department of Women's and Reproductive Health, Oxford as well as being President of the UK's MacDonald Obstetric Medicine Society and Chief Medical Officer, Data and Research at the Egton Medical Information System. Lucy trained in General, Renal and Obstetric Medicine in Oxford, London and Sydney before taking up her current consultant post in 2008.

Dr Mackillop introduced her lecture by reminding us of the changing face of the obstetric population over the years of our careers. For example, who is having babies in the UK at the moment? Data indicate that mean ages of mothers are higher than previously, and mothers born outside the UK are now more common. With these and further factors arrive medical caveats, which might concern obese mothers and also women who have co-morbidities accompanying their pregnancy.

In the past generation maternal mortality was lower than now; conditions such as rheumatic heart disease as well as other cardiac maladies, are common amongst the immigrant population. These can be indirect causes of mortality, but today as many as 57% of expectant mothers have existing medical problems when they embark on a pregnancy. The UK at present is not doing well compared to other north European countries such as those of Scandinavia, and also compared to Ireland. It is the case that during pregnancy in the UK, numbers of non-obstetric causes of deaths are higher than obstetric causes of death. From the point of care, it is a fact that obstetricians are not fully comfortable dealing with patients suffering from non-obstetric ailments, whereas other specialities are not fully comfortable with supporting pregnant women with obstetric complications. It is thus important that there are physicians who engage with maternity.

Dr MacKillop stressed that she is an obstetric physician NOT an obstetrician. In her area of expertise, knowledge of a far wider field of conditions is necessary, more than those of the simple obstetrician. Management of ranges of ailments is crucial as well as changes in basic physiology in pregnancy. In her case, her training has been in such areas as providing a service for high-risk

pregnancy patients. In her current team, in addition to herself there are two obstetricians, which is a sizable expansion from the situation from 2008 up to 2024. They are able to provide combined help for pregnant women with a variety of further complications. This then provides all the benefits of having an obstetric physician, working in concert with obstetricians. The patient has a single point of contact, and visible compatibility between specialities. The result is rapid access obstetric medicine.

Lucy concluded with a brief account of training and education for the obstetric physician, as it is in England at present. First, the speciality is now fully recognised. When she embarked on her career there were four obstetric physicians practising, whereas now there are thirty-nine. Maternal medicine networks have been set up, with a 'hub and spoke' mechanism. This system is of great use for providing advice and support to colleagues in further hospital departments, both in Oxford and further afield.

A wide variety of questions followed this original and fascinating topic, which was of great interest to the audience, many of whom previously, had not fully considered the role of the obstetric physician.

The dangers of sunlight

Dr Hiva Fassihi MA (Cantab)MD FRCP

Dr Fassihi is a Consultant Dermatologist and is Head of the Photodermatology Unit at St John's Institute of Dermatology, Guy's and St Thomas' Hospital, as well as being Clinical Lead for the UK National *Xeroderma pigmentosum* Service. She is deeply involved in translational research in *Xeroderma pigmentosum* and other disorders of abnormal DNA repair.

Dr Fassihi introduced her talk by describing to us the wavelengths of light, of which sunlight is composed, and how it penetrates the layers of normal skin. UVB, although only 5% of the total type is more damaging than UVA – the remaining 95% - although this penetrates more deeply into the dermis. UVA damages the skin directly whereas UVB rays can also cause indirect results. Hiva's widespread advice to the audience was that the population needs to always protect itself from these harmful effects. The best possible protection is to NOT go out in the sun, or when necessary, to cover as much of the body as possible. Even during daily occurrences such as riding in vehicles, we are considerably protected by the glass of windows, which although permitting the entry of light largely inhibits entry of both UVA and UVB sunlight.

Sadly, we all tend to be aware of the most evident effects of acute over-exposure to sunlight – reddened skin, blisters and considerable discomfort. But there are chronic effects too such as photoaging, wrinkles, persistent pigment-caused darkening and development of leathery skin; Dr Fassihi showed us fascinating images of faces that had suffered such damage: a lady with excessive wrinkles making her look older than her age: a long-distance lorry driver – having spent his life driving with his window open – having extreme wrinkles on the

exterior-facing side of his face, but none on the interior-facing side! Chronic damage is always bad, but some results, such as telangiectasias and photocarcinogenesis result in patients arriving at the clinic. In all areas of the world, light-skinned people are more frequently victims to these changes, for example, the greatest component of the population of Australia, has not evolved to live there. The crucial fact of UVB interaction with living cells is that the wavelengths cause DNA gene transcription mutations, both in nuclear and mitochondrial DNAs. As little as one day of exposure to sunlight can result in interruption of the nucleotide excision repair pathway, dysregulation of pyrimidine dimers and activation of inherent oncogenes with cell cycle dysregulation. The three most common skin malignancies associated with sun damage are basal cell carcinoma (BCC), squamous cell carcinoma (SCC) and malignant melanoma. In the case of *Xeroderma pigmentosum* successful healing is cancelled, and carcinogenesis results.

Dr Fassihi completed her lecture by providing us with information concerning widely available sunscreens. Always wear SPF factor 50; over-the-counter estimates are not always accurate; thus one must err on the side of safety. The Boots plc rating is the one most likely to be trusted, although claims of SPF being over 50 seem implausible. Sunscreens need to be re-applied repeatedly when in the sun – this is extremely important for children, as their skin is susceptible to sun damage, and also their behaviour may be inconsistent. Dermatology in Australia has been providing statistics for generations, lack of use of sunscreen DOES result in increased incidence of squamous cell carcinoma and malignant melanoma, but basal cell carcinoma increase is not to such an extreme level. Interesting experiments have been performed (on consenting humans) of other nationalities, at other venues and for shorter time intervals, which have provided consistent results. Data have been provided, for example, studying Polish holiday makers in Tenerife. Dr Fassihi's lecture was very warmly received and was followed by a wealth of interesting questions.

Incompetence treating incontinence

Miss Carolynne Vaizey MBChB MD FRCS (Gen) FCS (SA)

Miss Vaizey is a Consultant Colorectal Surgeon. She first qualified to be a Consultant Surgeon in South Africa, then followed this by being Consultant Surgeon at the Middlesex, then UCLH followed by being at St Mark's, where she is Medical Director. Her special interests are intestinal failure, proctology and the pelvic floor.

Miss Vaizey's introduction described the problem to us. Her area is faecal incontinence, which might include a variety of consistency of stools produced, which is crucial to the problem. Initially to the patient, she might prescribe low dose Imodium, suppositories, a high fibre diet and dietary advice. In addition, she investigates whether the patient might benefit from obtaining a specific 'Card' that he/she might rapidly produce while in urgent need to visit the lavatory while in public places.

One of her basic tests to the patient is to discover the extent to which they retain the ability to squeeze the anal sphincter – this is diagnostic. Miss Vaizey stressed that the anus is a finely tuned organ and there are substantial tried and tested methods for its treatment. Collected stools need to be stored correctly until they can be tested appropriately. Evacuatory techniques need to be described and practised. A damaged sphincter can be repaired when surgery is appropriate, but this cannot be guaranteed, around 78% are successful.

Some examples of possibilities were described: Overlap sphincter repair can be appropriate for patients with persistent diarrhoea, but when there is full thickness prolapse, pelvic floor surgery could be dangerous. Sacral nerve stimulation in some cases might work, however, this needs external stimulation, as a non-sensory feeling results. Injectable bulking agents are generally not advisable, although a recently devised example of this is inserted as thin as a pencil lead, which then swells after insertion. At present, laparoscopic interventions with non-absorbable mesh are not showing great success and graciloplasty to form an artificial bowel sphincter has had little success. Colostomy and paracolostomy using soft bands have had poor results for treating hernias. Miss Vaizey insisted that referral of appropriate patients directly to the relevant expert, in her opinion, a pelvic floor consultant (as she is herself), is essential, no other!

Miss Vaizey then provided us with a sad example, of a set of incompetent events she has encountered in the past. A twenty-eight year old, obese woman, who was able to pass stools yet complained of incontinence. The patient refused all well-explained advice on how to deal with her situation but wasn't satisfied and progressed to visit other surgeons. She had sacral nerve intervention at one site, then had a colostomy at a further hospital, which ultimately became necrotic. She was obliged to take parenteral nutrition. However though, she also obtained normal food, and her weight increased to 184Kg. She sued. A psychiatrist was consulted, and the patient was admitted to a psychiatric hospital, where subsequently she committed suicide. This fascinating talk was followed by interesting questions from the floor.

Session 2

Chair: Dr David Goldsmith

Beware of your pets

John Chitty BVetMed CertZooMed CBiol MRSB MRCVS

Summary: Zoonotic Diseases

What is a zoonosis?

A zoonosis is any disease or infection that can be naturally transmitted between vertebrate animals and humans. Globally, over 200 zoonotic infections are recognised, with 40 reported in the UK. Zoonoses account for 60–75% of emerging infectious diseases in humans, posing risks to both workers and the public.

Key Zoonotic Diseases

1. Foodborne diseases

- **Examples:** Salmonellosis, Campylobacteriosis, E. coli.
- **Salmonella and Reptiles:** Reptiles naturally carry *Salmonella*, with outbreaks linked to feeder mice and contaminated environments.
 - **Effects in Humans:** Gastrointestinal illness, rare systemic disease.
 - **Prevention:**
 - **Animal side:** Good husbandry, hygiene, and diet.
 - **Human side:** Handwashing, safe food handling, proper cleaning, and avoiding reptiles for children under 5 and adults over 65.

2. Toxoplasmosis

Caused by *Toxoplasma gondii*, this common infection affects 0.6% of the UK population annually, with 50% showing signs of exposure by age 50.

- **Transmission:** Raw/undercooked meat, cat faeces.
- **Signs:** Flu-like symptoms, pregnancy complications, possible links to mental health.
- **Prevention:** Practise food hygiene, clean litter trays, and avoid exposure during pregnancy or immunocompromised states.
- **Are cats too big a risk?** The benefits of cats - exercise, companionship, and wellbeing - often outweigh the small zoonotic risks.

3. Toxocariasis

Caused by *Toxocara canis* or *Toxocara felis*, this condition results from ingesting eggs.

- **Signs:** Fever, flu-like symptoms, rare blindness.
- **Prevalence:** Fewer than two cases per million annually.
- **Prevention:**
 - Pets: Regular deworming, cleaning up faeces.
 - Humans: Practise personal hygiene and limit children's exposure to contaminated areas.

4. Chlamydiosis

Caused by *Chlamydia psittaci*, this infection primarily affects people exposed to birds like parrots, pigeons, or waterfowl.

- **Signs:** Respiratory symptoms (from conjunctivitis to severe illness), often asymptomatic in birds.
- **Prevention:** Purchase healthy birds, monitor for illness, use PPE, and avoid exposure for immunocompromised individuals.

5. Ringworm (dermatophytosis)

A fungal infection spread by soil, animals (pets, farms, wildlife), and the environment.

- **Is it easy to catch?**
 - Yes, for immunocompromised or immunonaive individuals.
 - No, for healthy adults, who may develop immunity.
- **Signs in Pets:** Non-itchy lesions, crusting, or asymptomatic cases (especially in cats).
- **Prevention:** Report and diagnose skin changes, avoid contact with infected animals, and disinfect contaminated environments with a 1:10 bleach solution.

Managing zoonotic risks

To safely manage zoonotic risks:

1. Keep pets healthy through regular veterinary care and good husbandry.
2. Practise personal and food hygiene, including handwashing and proper cleaning of animal-related items.
3. Use common sense by minimising high-risk exposure (e.g., for children, pregnant, or immunocompromised individuals).

While zoonotic diseases exist, the benefits of pet ownership - exercise, companionship, and improved wellbeing - far outweigh the risks when managed responsibly.

Dementia: time for a rethink

Professor Martin Rossor MD FRCP FMedSci

- ~30% of cases have genetic origins.
- Improved molecular definition provides insights into early-stage disease.

Effects of dementia

- Poor health, injuries, inadequate education, medication misuse.
- Loneliness, stress, poverty, pollution.
- Early progression of disease.

Maintaining cognitive health

1. Protect the head: avoid injuries.
2. Avoid smoking.
3. Balanced diet: include nutritious foods.
4. Alcohol moderation: limit wine intake.
5. Prioritise sleep.
6. Relaxation techniques: meditation or mindfulness.
7. Stay active: both physically and mentally.
8. Foster curiosity: keep learning and exploring.

Present and future of MRI in cardiology

Professor Dudley Pennell MD FRCP FACC FESC FRCR FAHA FSCMR FMedSci

Cardiomyopathy and sudden cardiac death (SCD)

Key Influences:

- Cardiomyopathy
- Sudden cardiac death (SCD) and implantable cardioverter defibrillators (ICDs)
- Quantitative myocardial perfusion
- Cardiac microstructure

Late gadolinium enhancement (LGE) and SCD risk

- Fibrosis: enhances prediction of SCD beyond ejection fraction (EF).
- Dilated cardiomyopathy (DCM):
 - Guidelines recommend ICD for EF <35%.
 - Registries show ~80% of out-of-hospital cardiac arrests occur in patients with EF >35%.
 - Patients with EF >35% have lower non-SCD mortality, making ICDs potentially beneficial.
- Prospective study on DCM with LGE (EF >40%):
 - 399 patients followed for a median of 4.6 years.
 - Endpoint: SCD or aborted SCD.

SCD risk in specific conditions

- Hypertrophic cardiomyopathy (HCM):
 - HCMR trial recruited >2,000 patients to assess CMR and SCD outcomes.
- Myocarditis:
 - CMR plays a critical role in assessing SCD risk.
- Sarcoidosis:
 - LGE associated with ICD shocks and aborted SCD events.
- Arrhythmogenic right ventricular cardiomyopathy (ARVC):
 - Events predicted through CMR findings.

Quantitative myocardial perfusion

- Myocardial perfusion cardiovascular magnetic resonance (CMR):
 - Optimised dual-sequence techniques improve quantification and reconstruction.

Conclusion

- Role of imaging in modern cardiology:
 - CMR will play an increasingly significant role in:
 - Tissue characterisation.
 - Prognosis beyond EF for ICD use.

Session 3

Chair: Professor Robin Williamson

Facial reconstruction

Hiroshi Nishikawa MA, MD, FRCS

The first surgical talk in the final session of the day was given by Mr Hiroshi Nishikawa. Born in Japan but educated in England from an early age (including at Cambridge and King's College Hospital), the speaker became a Consultant Plastic and Reconstructive Surgeon in 1996. He worked initially in Leeds but then transferred to Birmingham Children's Hospital, where he became clinical lead for the craniofacial unit between 2010-2015. He has since retired from the NHS but continues to work in a private clinic. Along the way he has spent time in Ethiopia, where he worked with the charity Facing Africa and operating on children with severe facial deformities. He discovered that concepts of attractiveness are international: people living in a remote part of Africa with no access to the internet were shown pictures of movie stars and selected faces that were generally considered beautiful to beholders in the wider world.

Some Ethiopian children with noma – progressive facial gangrene – required a major reconstruction of the jaw and cheek, and here he emphasised the importance of restoring a functioning lower lip to prevent drooling. Mr Nishikawa introduced us to 'the reconstructive ladder', which starts with healing by primary and secondary intention and progresses to more complex procedures involving grafts, tissue expanders, local and distant flaps, the use of prosthetic materials and microsurgical techniques and culminating in the potential for transplantation of the whole face. Grafted tissue can include skin, cartilage, nerve, bone, fat and tendon. Besides technical skill, the avoidance of infection and the maintenance of adequate vascularisation are the keys to success.

The speaker illustrated his fascinating talk by showing a number of the procedures that he had personally performed. One such procedure was a complex nasal reconstruction following the excision of an arteriovenous malformation; it involved creation of a forehead flap together with the use of a balloon tissue expander. Another procedure employed midfacial distraction to improve hypertelorism, an abnormality of foetal development that leads to an unsightly increase in the distance between the two orbits. A third example was the use of a gracilis muscle transfer incorporating the obturator nerve and vessels in a patient with Moebius syndrome, that is, congenital bilateral facial palsy; the obturator was anastomosed to masseter. The lecture ended with a short review of facial transplantation. There had been 48 published cases over a period of 12 years, but the potential complications (including a 10 per cent level of mortality) mean that the procedure is still in its developmental phase.

Parathyroid surgery in 2024

Professor Fausto Palazzo MS, FRCS (Eng), FRCE (Gen)

Professor Palazzo is an endocrine surgeon at the Hammersmith Hospital in London, and he gave a detailed and entertaining review of parathyroid disease and its modern treatment. He reminded us that the parathyroid glands were the last mammalian organs to be discovered, when Sir Richard Owen, Professor of Anatomy at the Royal College of Surgeons, identified them in an Indian rhinoceros at the London zoo in 1850. Then in the 1880s a Swedish medical student, Ivar Sandström, found that all animals possess four parathyroid glands. Subsequently it has been noted that up to 6 per cent of humans have a fifth. The focus of the talk was on primary hyperparathyroidism, the usual cause being a solitary adenoma. The condition is far from uncommon, affecting 3 in every 1000 individuals but with an increased incidence in those with osteoporosis. There is a female preponderance especially above the age of 60. The diagnosis depends on high calcium levels in the blood and urine and an inappropriately high parathyroid hormone level. This last feature helps to differentiate primary hyperparathyroidism from malignant hypercalcaemia due to bony metastases, in which the high serum calcium suppresses parathormone secretion. The hormone acts directly on the skeleton to mobilise calcium from bone and on the renal tubule to enhance calcium reabsorption, as well as indirectly to increase calcium absorption from the gastrointestinal tract. One major consequence of hyperparathyroidism is osteopenia, which leads to fractures of the wrist and lumbar spine, in particular. There is a 40-fold increase in the incidence of nephrocalcinosis and renal calculi as a consequence of the hypercalcaemia. Other patients develop abdominal pain from constipation, peptic ulcer or pancreatitis and/or psychological problems (depression). But 10 per cent of patients appear to be asymptomatic. Localisation of the adenoma is potentially assisted by sophisticated modern imaging using four-dimensional computed tomography (CT), sestamibi scanning, choline positron emission tomography (PET) or angiography with venous sampling for hormone levels. In practice most tumours can be found by an experienced surgeon at the first operation, but these imaging techniques are of particular value in helping to find an elusive tumour after a negative exploration of the neck. Resection of the tumour is clearly indicated in symptomatic patients including those with renal stone disease or reduced bone density, in whom it is both cost-effective and curative. Minimally-invasive techniques have gained in popularity. The short half-life of circulating parathormone means that a rapid intraoperative assay can be performed if there is any doubt about the completeness of removal, for example in patients with multiglandular disease. Most asymptomatic patients can safely be managed non-operatively, at least for a period of years.

Climate change: a closer look at the challenge and solutions



On Thursday 20th February 2025 a riveting talk was given by Alyssa Gilbert. Alyssa is Director of Innovation, Grantham Institute for Climate Change and the Environment, and the Director of The Undaunted, Imperial College London's climate change Innovation Hub. She tackled her talk with great enthusiasm and illustrated her presentation with elegant slides. She started by asking the audience what topics they would like her to cover - as she had less expertise on health issues. She outlined the data for change actually taking place, as evidenced by global ground earth recording of temperature, examination of ice cores and tree rings, and observations from satellites, over time. These all confirm a progressive rise in global temperature. A variety of models including various periods (1970 to 2002 and 2002 to 2012) have shown temperature rise is not only established but continues to increase. Greenhouse gases from energy production (from coal & oil), agriculture and industry are respectively 25%, 24%, and 21% more. The richest countries of the world account for 49% of carbon dioxide emissions while the poorest countries contribute only 10%; however, it is the poorest countries that are most impacted by climate change (for example, deforestation) and are less able to adapt to increasing drought and heat. These changes force populations to move. Apart from rising temperatures, the manifestations of weather events are more extensive, intense and frequent wildfires, hurricanes and floods. Models of risk to the planet of 1.5% or 2.0% rise in temperature have been calculated and the impact that such would cause. The UK is less impacted than other parts of the world but still suffers effects on the nation's health, and anticipating the future temperature rises, adaptations will need to be implemented. Temperature rise in urban areas will not only be higher during daytime, but nighttime reductions will decrease. To mitigate

temperature rise, green spaces need to be protected and increased. We may need to adapt our working practices to be more like Mediterranean countries. There needs to be a shift in the nation's behaviour with respect to diet (less meat consumption), more clean energy and more public transport use, and better insulated homes. These measures reduce CO₂ emission but will also improve air quality, a contributor to excess cardiovascular deaths. Alyssa identified 3 areas to counter climate change reduction, fossil fuel use, a more watery environment (for example the renovated King Cross area), planting more trees. She also pointed out that communities working together are more resilient in crises reducing anticipated mortality. They are more likely to accept wind turbines in their area if there is ownership and financial benefit. She touched on innovations, demonstrating two examples, namely wrist-device warning of body temperature rise and a body armour cooling device for treating heat stroke. The audience asked questions on the use of hydrogen and the role of plankton decline. Alyssa responded to all. When is it permissible and constructive to protest? Causing inconvenience to the public, in order to place climate change higher on the nation's agenda. But she felt this was not within her remit.

Clara Lowy



Lions resting. Jeffrey Rosenberg and friends

External events reports

Visit to the Linnean Society



The Library. Ann Ferguson

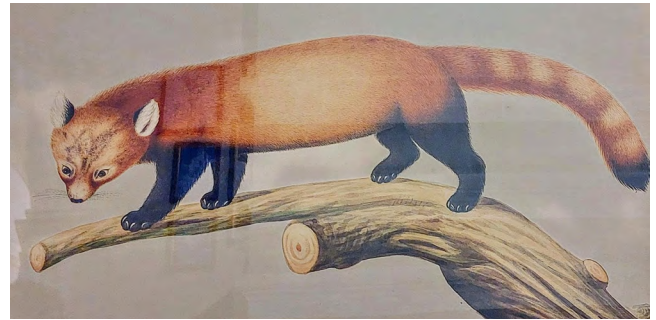
On 19th November 2024 SFF members gathered for a 'behind the scenes' guided tour of the Linnean Society, Burlington House - perhaps best known as the location also of the Royal Academy of Arts but also home to the Geological Society, Royal Astronomical Society and the Royal Society of Chemistry, all since 1854 when purchased by the government from the Cavendish family. The Linnean Society was founded in 1788 and is the oldest learned society devoted to the science of natural history. The Society owes its existence to the philanthropy of Sir James Edward Smith (1759-1828) its first President. Sir James was born in Norwich, the oldest of seven children of James Smith a wealthy wool merchant and Unitarian. Sir James, a botanist, was given the substantial sum of 1,000 guineas by his father in order to purchase the collection of Carl Linnaeus being sold by Linnaeus's widow. We learnt that the money was in part conditional on Sir James getting married! For reasons which are unclear the collection had initially been offered to, but rejected by, Sir Joseph Banks. The reason for the spelling of the society as Linnean is that Linnaeus was ennobled in Sweden as Carl von Linné.



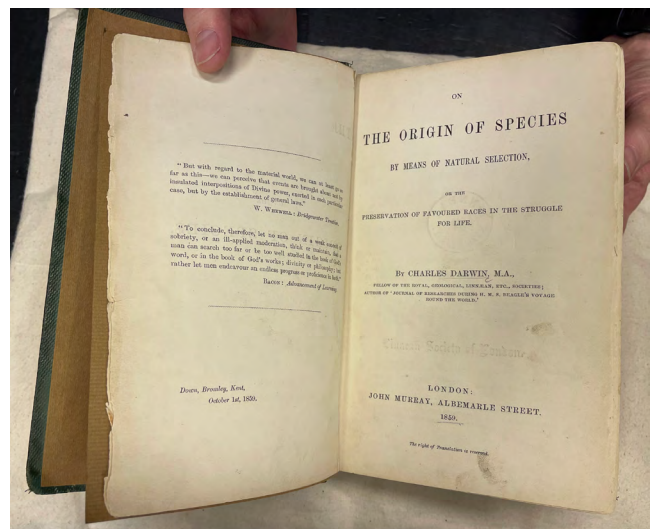
Botanical specimens. Ann Ferguson

We started in the impressive meetings room which replaced the original one of the Royal Academy of Arts, and is commemorated by a plaque there. We next visited the library and finally the treasure trove of the archives maintained and protected within a climate-controlled vault with its impressively thick steel door. Many beautiful, rare prints and paintings adorn the walls throughout the building, and I was particularly struck by the very first depiction of a red panda. We viewed a wide range of dry preserved fauna and flora contained within the vault. Dry preserved specimens are fragile so easily damaged but formalin as a wet preservative of choice wasn't produced commercially until the 1890s. We were also shown priceless books such as a first edition (1859) of

Darwin's *On the Origin of Species*. Darwin had presented his theory to the Society on 1st July 1858. However, In May 1859 the then President, Thomas Bell gave his presidential address in which he noted that 1858 wasn't a year of striking discoveries! I was reminded of the astronomer Clifford Stoll who in 1995 said that the Internet would fail!.



Red panda. Jeffrey Rosenberg



On the Origin of Species. Ian Stephen



The vault. Ann Ferguson

This was another outstanding visit available to the lucky few who booked as soon as advertised on the SFF and RSM website. Group size is often limited by logistics and I was extremely fortunate to have been offered a place from the waiting list as I'd initially delayed booking by a few days! As ever, we are indebted to Sue Weir who organises our external events which include her absolutely wonderful walks, when we also benefit from her great expertise as a Blue Badge Guide.

Jeffrey Rosenberg

Visit to the Apothecaries Hall & St Paul's Cathedral



St Paul's Nelson. Ian Stephen

On the 12th of February, we met Sue Weir at Blackfriars tube station and walked the short distance to the Apothecaries Hall. We assembled in the council room where we were addressed by a Fellow who gave us a wonderful account of the history of the Worshipful Society of Apothecaries, from its origin in 1180 as part of the Guild of Peppers to the many current activities undertaken. In 1617 the Apothecaries petitioned King James 1st and eventually were granted their own Charter. In 1666 the great fire of London destroyed the original building leaving just waist height ruins, but by 1672 the hall was rebuilt. As the Society prospered it came into dispute with The Royal College of Physicians concerning their roles, and a test case in 1704 decided that Apothecaries could dispense medication and charge and could give advice to patients



St Paul's Nelson's tomb. Ian Stephen

but NOT for a charge. The Apothecaries continued to expand, manufacturing and selling drugs and also licensing members. Manufacture of medicine remained a substantial part of its activities supplying medicines to the army and navy, but this ceased in the early twentieth century. Members were at the forefront of developments receiving the Royal Assent in 1815 giving the Society the right to examine medical students and grant licences - in effect regulating the profession until the Medical Act of 1858; then Elizabeth Garrett presented herself. She was allowed to be examined as the act had referred to 'persons'; (the same occurred to her when she applied to become a member of the British Medical Association). Shocked by all this, the Apothecaries decided to bar women for the next 20 years! The crest of the Society has a Rhinoceros flanked below with Apollo with bow and arrow sitting astride a dragon. The fabric of the building is impressive and the Great Hall, recently renovated, is adorned by a series of full length portraits of past members and also includes Queen Elizabeth II. There are cabinets of instruments and many beautiful large and small jars, and there is also a beautiful idealised painting of the Armada. Today the Society is still very active in

medical education, offering nine diplomas in topical subjects such as 'Medicine in conflict and catastrophe'. Named lectures are given; one is in the name of the founder Gideon de Laune.



The group viewing St Paul's nave. Ian Stephen

After an independent lunch we assembled on the steps of St Paul's Cathedral. We were guided by a very knowledgeable lady who pointed out the more famous memorials and some of the details such as Wellington's horse. We sat in the choir and admired the mosaic above us dating back to the Victorian era. Queen Victoria was rather disparaging and considered the cathedral too plain and this led to the choir mosaic. Perhaps the most interesting part of the tour was climbing up the 190 odd steps half way to the whispering gallery, where the library completed in 1709 is housed. It is a rather cold dimly lit space not really conducive for study. However, the library has just gone on line hoping to generate interest in religious literature. The most precious of their books is the Tyndale bible of which there are only 3 known copies. There is also a second spectacular steep circular staircase much used by the film industry. We were able from the



St Paul's, Wren's model. Ian Stephen

west end of the Cathedral to look down on the nave providing a magnificent view. This space also has a number of William Blake's paintings - one I particularly liked is of Adam facing a cat and Eve facing one too. On this floor there is also a model of Wren's original design that horrified the council and led to major modifications. However, Wren surreptitiously altered the building during construction. Finally, we descended into the crypt, which extends throughout the whole footprint of the Cathedral. Here are the actual burials of the great and the good, as well as numerous memorial plaques, mostly men. Florence Nightingale however is here.

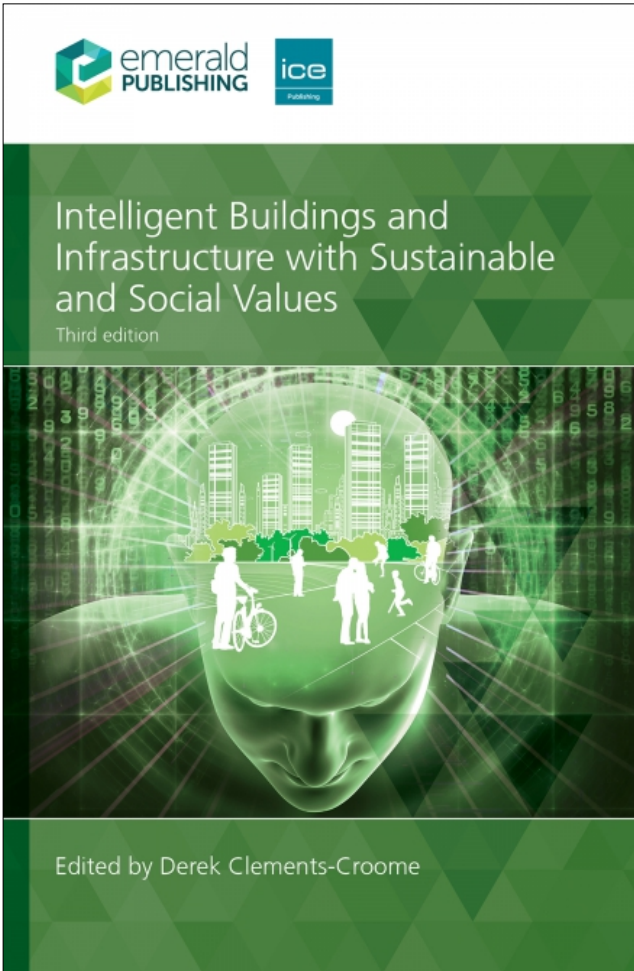
Clara Lowy

Book Reviews

Intelligent Buildings and Infrastructure with Sustainable and Social Values

Derek Clements-Croome

(third edition)



Intelligent Buildings and Infrastructure with Sustainable and Social Values is a book edited by one of our SFF Fellows, Derek Clements-Croome, Professor Emeritus at University of Reading, UK. It is a comprehensive guide and an international reference source to the latest knowledge on the design, management, operation and technology of intelligent buildings and cities for sustainable developments that meet the needs of users now and in the future. A transdisciplinary approach underpins the beliefs expressed in the book. Written by authors from industry and academia, the book considers cultural changes affecting the way people live and work, the importance of an integrated approach to design and management, and the benefits technological developments can bring in developing sustainable buildings that meet users' needs and those to mitigate climate change.

Fully revised and updated with contributions on the latest developments, the book focuses on:

- intelligent liveable buildings which are a vital part of the infrastructure that make up towns and cities, whether new build or undergoing renovation
- innovative approaches which make buildings and cities less stressful, more sustainable, more humane and creative places to be in, providing better services and opportunities
- the importance of user-centred design, artificial intelligence and emerging monitoring technologies in the successful implementation of intelligent systems to create an environment capable of continually interacting with occupants to provide places with high social value
- learning lessons from nature to inspire engineering applications and more sustainable architecture
- how buildings can make the best use of technology in the least complicated way
- case studies from across the UK to demonstrate how intelligent design, construction, management and technology has been used successfully in practice.

The third edition of *Intelligent Buildings and Infrastructure with Sustainable and Social Values* extends the thinking in the first and second editions of *Intelligent Buildings*. It remains an invaluable practical guide with a rich source of references for architecture, engineering and construction professionals, building owners and developers involved in procurement, design, management and operation of buildings, as well as students studying architecture, engineering, building services, facilities management and other built environment disciplines.



Giant salamander. Jeffrey Rosenberg and friends

STRANGE ADVENTURES (seven short stories)

Dr Asim Dasgupta

Illustrated by Amrita Ditta



sad, sometimes eerie, but always a challenge to our imagination.’

HONU - The Granny

The story concerns John, a young Hawaiian boy of Indian extraction, who became interested in the lives of sea turtles (*Honu* in Hawaiian). He decided that when he grew up he would become a marine biologist to be able to study their welfare. Indeed he did and, eventually formed a friendly relationship with an aged female turtle the ‘Granny’. Further, John, the Granny, local children and Park Rangers were able to initiate turtle conservation projects on their Hawaiian islands.

Foxes - Love or Hate

Four young students of English at Oxford University relate their various experiences with foxes in the countryside. They discuss the pros and cons of fox hunting regulations in their various countries of origin. Relating a mythical tale about jackals marrying, the Indian narrator seems not to realise that peacocks are MALE and the female of the species (the peahen) does not have a multicoloured tail!

Lady with Lamp

Late on an evening, an exhausted young doctor drifts off to sleep on a sofa in the deserted doctor’s parlour of the ancient hospital in Yorkshire. In this dreamy state he fancied he was lead by a phantom to the bed of a dying patient, who he was able to save. Sharing the tale next day he was informed that he was not the only person to experience such an intrusion and that a ghostly ‘Sister Isabella’ had previously been a nurse at the hospital and after her suicide her spirit seemed to have remained, taking part in occasional events.

The Vanishing Boatman

Describing a village in East Bengal (now Bangladesh) a hundred years ago, that could only be accessed by riverboat, a grandfather relates a story to a child. Gopal and Rakhal were two mischievous local boys, who later

became separated when Gopal was sent to boarding school in a distant town. On a holiday evening travelling home, Gopal found no ferry boat to take him to his village, but a mysterious one arrived in the charge of a silent ghostly boatman. In the time Gopal had been away, poor Rakhal had died!

Strawberry the Red Squirrel

Arya lived in a village in Southern England. She and her young friends were interested in squirrels, and in different parts of the world they had seen them of different colours, although here in their native countryside only grey ones were common. Nevertheless, one day Arya found an injured juvenile red squirrel in her garden’s strawberry patch. She took it to the local vet, and after treatment took it home as a pet. With instruction from the local Wildlife Rehabilitation Centre ‘Strawberry’ was nurtured back to health, ahead of his departure.

A Dream of Reincarnation

Maya (now deceased) and her son Rohan lived in Kolkata, with their two dogs. At Maya’s death both dogs suffered from her parting and also died. Sanjoy, living in Southern England, was Maya’s brother-in-law. One night Sanjoy dreamt he was in their home in Kolkata and Maya rang the bell - although being invisible from the window. The dream caused Sanjoy to research a variety of religions, some of which believe in reincarnation. Was Maya reincarnated as one of her dogs?

Last Quarter

At 47 years of age, Ram Das was insulted at being mistakenly addressed as ‘dadu’ (grandfather). A generation later, when he WAS a dadu, Ram was introduced to the *Last Leg of Life Club*, that at that stage had 20 members. He liked the sound of all the activities performed by the members, but then discovered there was a waiting list to join. Meeting with the members, they all recounted their previous and very varied life styles. All were glad to have returned to India for their ‘last quarters’, although the relatives of many remained living in different parts of the world.

The stories in the book are varied, charming and suitable for children. Hopefully little people won’t notice the occasional typographical and grammatical errors, or even the blunder about the peacock described as having **her** colourful tail!

Reviewed by Catherine Sarraf

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Lion cub. Jeffrey Rosenberg and friends



Chameleon ZSL. Jeffrey Rosenberg and friends

Information for Authors

There are three issues per year of the Journal of the RSM Senior Fellows Forum, which appear in April, August and December. Articles may be submitted at any time, and accepted ones are compiled into the next available issue space.

Each manuscript should bear the title of the article, name, address and email address of the author. Please write in Arial Narrow, 12 point, 1.5 spaced and do not justify the text. Spelling needs to conform to the Oxford English Dictionary.

Text **MUST** be submitted electronically, as a fully editable Word document.

Authors also please be sure to complete your submission with your name on it.

Accepted articles for the *Journal*:

- Solicited articles, on a topic agreed with the editor, and should be 1,500 to 2,000 words in length.
- Articles submitted by readers - 500 to 1,500 words.
- Reports of presentations at meetings of the Senior Fellows Forum - 500 to 1,500 words, the author invited by the Chair of the corresponding day.
- Reports of extramural events of the Senior Fellows Forum - 500 to 1,000 words, the author invited by the leader of the event.
- Reports of Senior Fellows Forum tours - 1,000 to 2,000 words, the author invited by the leader of the tour.
- Short 'fillers', text and/or photographs. Poems, quotes, amusing items, brief - under 200 words.
- Submit to Catherine Sarraf:
alison.catherine872@gmail.com

Imagery:

With reference to submission of images (which is encouraged), it is important that each image is accompanied with a title, description and photographer acknowledgement.

Photographs should be uploaded digitally and be as high resolution as possible.