The Newsletter of the International Association of Sedimentologists

Issue 08, 2024

Dear IAS Members,

Welcome to your August IAS Newsletter, we hope that you have had a summer (or southern hemisphere winter) of fruitful research as well as some time to relax with family and friends.

This month the main news is that applications are open for the **11th International Summer School of Sedimentology**, "**800 million years of Earth History in 800 km²**". Follow the link and/or see below for more details! We also bring you an update on some of the field trips planned for the **22nd International Sedimentological Congress**, (Wellington, New Zealand, January 2025), as well as introducing two new members of the **IAS Early Career Scientists Committee**. We continue to make progress on uploading content to the **new IAS website**, and we will be looking for feedback and suggestions to further develop it in the coming months. Please make sure your diaries are marked with the dates of next year's **38th International Meeting of Sedimentology** which will be held in the historic city of Huelva, southern Spain. We remind our Members that the Fall 2024 round of applications for **IAS Institutional Grants, Postdoctoral and Postgraduate Research Grants** and **Masters' Fieldwork Awards** close on 30th September. Applications are made through Member profiles on the new web site. Applications for the second round of **North Sea Core** samples for teaching are open, with a closing date of 31st December. The first round had 9 successful applications from 16 submissions, and the selected institutions will shortly be receiving their core samples.

Finally, on a very sad note, we report the death of Luis Pomar, a major contributor to carbonate sedimentology, irrepressible enthusiast for his science and for his beloved Mallorca, supporter of IAS, and a good friend to many of us. We include an obituary from one of his former students.

We hope that you will share this Newsletter with your colleagues and students and encourage them to join the IAS. Membership is fantastic value with many benefits from access to the full archive of three major journals and 50+ books, to discounts at meetings, regular rounds of research grants for students and early career researchers, and much more.

With best regards,

Gonzalo Veiga

IAS General Secretary

Follow the IAS on Social Media

Follow the IAS on **Facebook**, **Twitter/X**, **WeChat**, **Bluesky** and **LinkedIn** to keep up to date with all of the latest news, announcements and happenings.

@sedimentology and IAS沉积学之家

All the **IAS Journals** are also active on "X" (former Twitter). Stay up to date on the latest news and papers in **@sedimentology** by following the IAS journals: **@JSedimentology**, **@DepositRecord**, **@BasinResearch**.

IAS President's Message

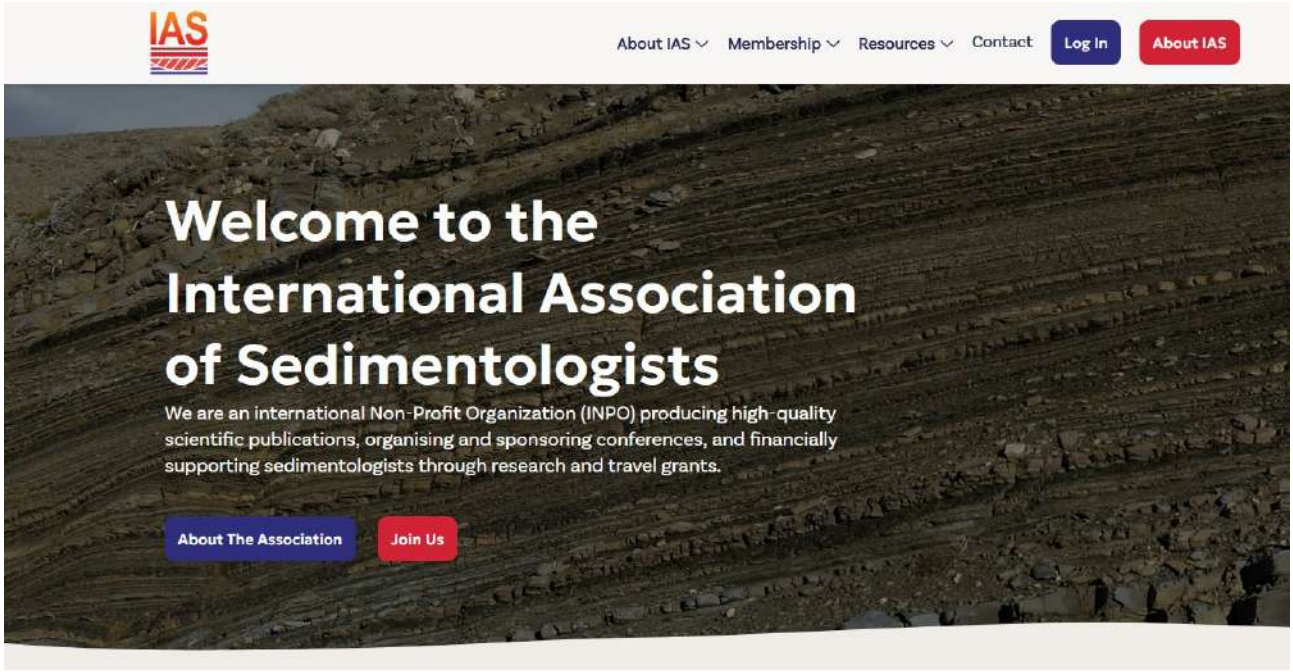
In this Newsletter we have lots of exciting news about upcoming IAS events. In September, the IAS will have a stand at GSA Connects once again and then in the coming year we have our 2025 Summer School and our annual IMS in Huelva. The Council of Management are now also working with the organising committee for the 22nd ISC in Wellington, New Zealand, which is less than 18 months away. All these events provide a tremendous opportunity to share the sedimentology of a region or country with our community, but such activities take time, effort and dedication. I'd like to thank all those people serving on the organizing committees that are preparing for these meetings for their hard work in the upcoming year.

Someone who was always willing to share his deep knowledge of sedimentology was Prof Luis Pomar, and it is with great sadness that we received news that Luis passed away in August. For many carbonate sedimentologists, participating in Luis's field class to the Miocene carbonate platforms of the Balearic Islands was an opportunity to think deeply about, and discuss, carbonate platform growth, and the interplay of sedimentological and biological processes. He was an inspirational teacher, deeply thoughtful and knowledgeable and unendingly enthusiastic. Luis was a longtime member of the IAS and was the 2018 winner of the Sorby Medal. A full obituary to Luis has been provided by our Guillem Mateu Vicens, Juan Ignacio Baceta and Marcos Aurell in this newsletter, who express well the impressive contributions that Luis made to carbonate sedimentology.

Thank you as ever for your support and please do not hesitate to get in touch with any questions, comments or queries through the IAS website **contact form**.

Cathy

IAS Website Update



We are continuing to work on the **new IAS website** and **membership portal** including adding news and event items, gradually uploading research reports, conference material and past newsletters to the member portal, improving some of the images. It will be another month or two before it is "finished" – although we intend for it to be a "live", topical, and constantly evolving site. The **July newsletter** included details of how to log in for the first time and we remind you to please do so and update your **profile** so that you can be found on the membership directory and to open up networking and collaboration opportunities. You can now select multiple research specialisation areas and include all your social media (X, Facebook, LinkedIn, Instagram, Bluesky) as well as professional (ORCID, Google Scholar, Research Gate) links. Your member dashboard is what you see when you log in, and it includes links to all the member benefits that you can enjoy. If you think something is missing, please let us know.

Please note that existing Members do not need to renew their membership when they first log in. Membership renewals will be announced from October by the Newsletter, email and social media as usual.

Do you have any spectacular sedimentology photographs that we could use for the website and other IAS publicity? Action shots are especially good, but please remember that anybody appearing in them needs to give their permission for the photograph to be used publicly. We will be announcing another **photo competition** in the next couple of months so look out for that!

800 million years of Earth History in 800 km^2

We are delighted to announce the **2025 IAS International Summer School of Sedimentology**, which will take place from **4th – 12th July 2025** amongst the world-class geology and stunning scenery of Northwest Wales, including the **GeoMôn UNESCO Global Geopark**. Time travel may be impossible, but you can 'join a ride' with the Avalonia landmass on its journey from the southern to northern hemisphere during the Precambrian to the Last Glacial Maximum and so view 800 Ma of sedimentary and palaeoclimate history in an active plate tectonic context.

The Summer School is also an unrivalled opportunity to meet, work together and make lifelong connections with your peers from around the world – and to be taught by expert instructors. As well as journeying in deep time you will learn about the role of geoscience in the energy transition, where NW Wales is leading the way in planning and development of clean energy resources.

Applications are open from IAS Student Members on postgraduate research courses. All you need to do is log in to your profile on the website, download and read the information document and application form, and submit your completed application (a single pdf that includes your CV, supervisor's letter of support and proof of student enrolment). The closing deadline is 30th November 2024.

The fee for the Summer School is **300 Euro**, covering tuition, materials, ground transportation, accommodation and some meals. Those accepted onto the Summer School will be eligible to apply for **Travel Grants** that will make a contribution towards the cost of their international travel to NW Wales.

You can download a flyer from **this link**.

New Members of the Early Career Scientists Committee

We welcome two new members to the Early Career Scientists Committee (ECSC), **Grisel Jiménez Soto** from Bolivia but currently working in Malaysia, and **Mariano Remirez** from Argentina but currently working in Denmark. They introduce themselves below.

The ECSC consists of young scientists who represent the upcoming generation of professional sedimentologists within the IAS and more widely. They are active in sedimentological research and publication and within 7 years of full time experience since completing their Ph.D. The ECSC is refreshed every 4 years at the International Sedimentological Congress, so we will be looking for new applicants in the run up to the Wellington ISC in January 2026. Watch for advertisements in the Newsletter and on IAS social media.

We also thank the two members of the ECSC who have stood down, Xin Shan and Romain Vaucher, for all their contributions to making the ECS activities so successful. We wish them the best of luck in their continuing careers.

Grisel Jiménez Soto is a geologist from La Paz, Bolivia. She specializes in carbonate sedimentology and geological modelling and earned her Ph.D. at Universiti Teknologi Petronas in Perak, Malaysia, where she focused on exploring the intricacies of carbonate systems and sedimentary processes. Grisel is particularly passionate about integrating advanced technologies into her research, such as Virtual Reality (VR), Augmented Reality (AR), and other high-tech tools that can enhance geological studies and provide innovative insights into her work.

Her research interests include deepening the understanding sedimentology and its broader geological implications. Grisel is constantly seeking new ways to apply technology to advance the field and improve her work.

Outside of her professional life, Grisel enjoys hiking, which allows her to connect with the natural landscapes that inspire her work. She is also an avid painter and sketch artist. These hobbies, along with her interest in cutting-edge technology, provide her with a unique perspective that enriches both her personal and professional endeavours.

Mariano Remirez is a sedimentary geochemist that started his academic journey in 2014 with a Bachelor's degree in Geology, followed by a PhD in April 2020, both from the National University of La Plata in Argentina. He was a doctoral and postdoctoral fellow at the National Research Council of Argentina (CONICET), before moving to the US for a postdoctoral position at the University of New Mexico and George Mason University. Currently, he is a Postdoctoral Researcher at the University of Copenhagen in Denmark. Thus far, he has published sixteen papers in peer-reviewed Journals and more than 25 abstracts in in international conferences. He has also served as the PI and co-PI on NSF-funded grants. He has also mentored several undergrad students and master students.

He has served as a board member of the Asociación Argentina de Sedimentología and the Centro de Investigaciones Geológicas councils. He is currently the Chair of the Geochemical Society's Diversity, Equity and Inclusion Committee. Moreover, since August 2021, he has also volunteered with SedsOnline.

Besides his geological background, he obtained a teaching degree in 2019, a Postgraduate Diploma in Science Education in 2023, and he is currently pursuing a Master's in Science Education, that expect to complete it by the end of the year (finger crossed!). In his free time, he is probably reading some fiction books or about history of science or just general history, watching some cool thriller TV show, or just watching tennis or enjoying his beloved River Plate.

38th International Meeting of Sedimentology, Huelva, Spain

The **38th International Meeting of Sedimentology** will be in Huelva (SW Spain) from **26th to 28th of June 2025**. It will be held by the University of Huelva and organized by a team led by Juan A. Morales. The organization is currently at an early stage, but you can already **visit the meeting website** to follow the progress as the meeting comes together. You will also find a promotional video, key dates, and details about the city of Huelva, the University Campus and possibilities of travel and accommodation.

We currently request IAS members to submit proposals for Special Sessions and workshops – please use the IAS website contact form for this.

Key dates for abstract submission and registration will be communicated soon via the meeting website, IAS website and IAS social media, so start planning your contributions. See you in Huelva!

IAS Research Grants

The IAS offers **research grant opportunities** to its Student Members on sedimentological MSc or PhD programmes, and to sedimentology postdoctoral researchers early in their career. There are two calls each year, with a typical annual total of 43,000 Euro awarded. These are ideal for **pilot studies** or **ancillary analytical work that isn't covered by bursaries and other funding sources**. The **application process is simple** and **success rates are high** compared to many other funding sources. Each grant has its own set of guidelines and all applications are submitted via the IAS website. Only one of each grant type may be awarded to a given applicant, but unsuccessful applicants for Postgraduate and Postdoctoral Grants are provided feedback and permitted to re-apply in a subsequent round if they are still eligible. Typical success rates of applications for these grant rounds are from about 30 – 60% (and higher for Judith McKenzie Fieldwork awards). **Well-written and justified applications for original and interesting sedimentological projects stand a strong chance of being funded**.

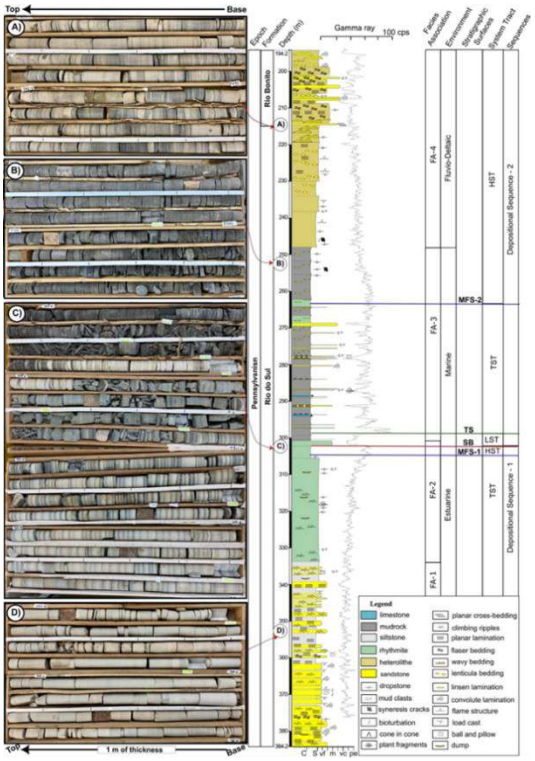


Image credit: Franciele Trentin

Grants are always paid after the research has been completed and a concise scientific report and a financial statement with itemised receipts are submitted to the IAS. This is expected to be within 1 year of the award date. Please note that where a personal grant is awarded the IAS will pay it to the Member's own bank account. It is not possible to make payments to Institutional accounts, nor is it possible for the grants to be offset in any way against institutional overhead costs. Advance payments also are not permitted.

The deadline for all Research Grant applications is 30th September 2024 at 24h00 CET (UTC+1).

Postdoctoral Research Grants

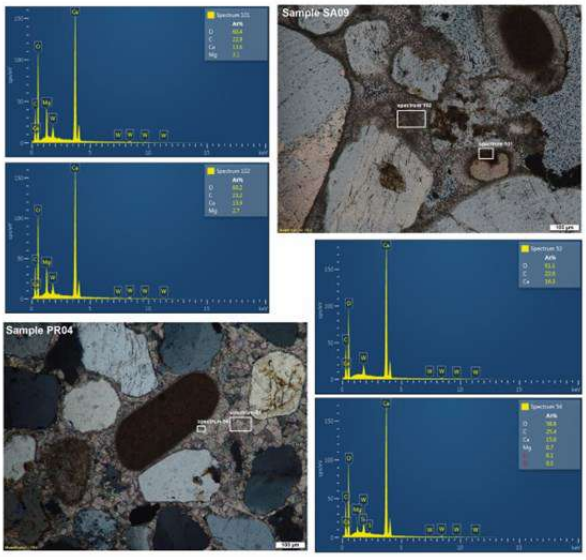


Image credit: Michaela Falkenroth

IAS Post-Doctoral Research Grants provide seed funding to help **Early-Career Post-Doctoral Researchers** who are **Full Members of IAS** to establish a proof of concept, to support applications to national research funding bodies, or to fund areas of a project that were not included in the original project scope. Applicants must have obtained their Ph.D. within the previous 7 years.

Up to 4 grants, **each of up to €2,500**, are awarded biannually. The application involves submission of a research proposal, CV, itemised budget, and a letter of support from the researcher's supervisor, line manager or Head of School. **Applications are submitted via the IAS website** where the specific guidelines and application forms can be found.

Postgraduate Research Grants

IAS Postgraduate Research Grants are ideal for funding analyses or field data collection that are related to, but not covered by, the applicant's existing PhD bursary. They are often used for testing new ideas that have arisen from the PhD research, visiting other institutes to use specialized facilities, or for collecting supplementary data. **Up to 10 grants, each of up to €1,000**, are awarded biannually to **IAS Postgraduate Student Members**.

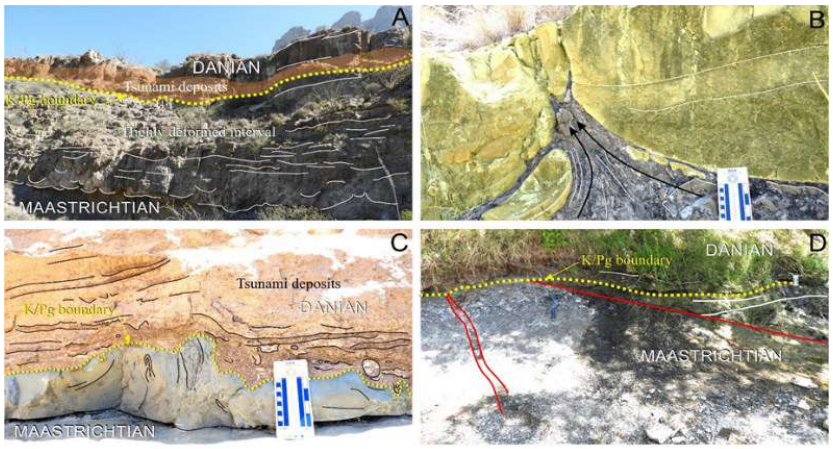


Image credit: Hermann Bermudez

Applications involve a short research proposal, CV, proposed budget, and the PhD supervisor's supporting recommendation. **They are submitted via the IAS website** where the scheme's guidelines and application forms can be found.

Judith McKenzie Fieldwork Awards

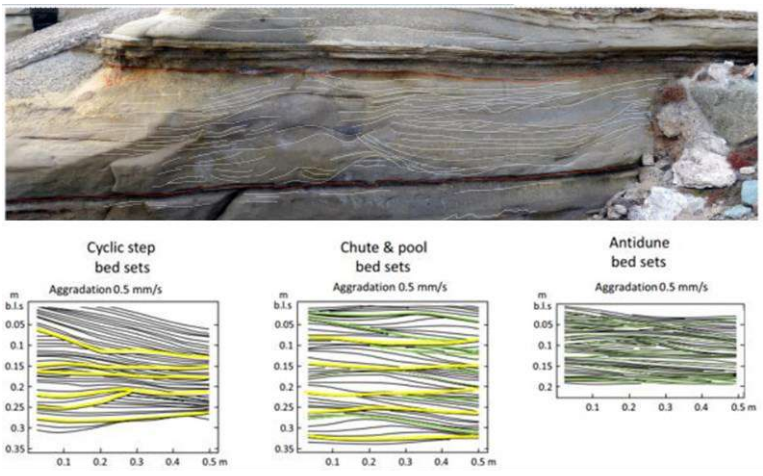
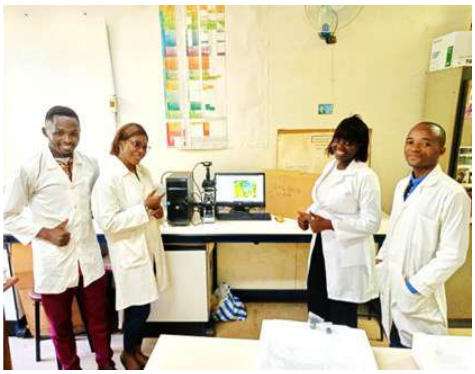


Image credit: Luthfi Saifudin

The **Judith McKenzie Field Work Awards** promote sedimentological fieldwork skills and observations for the newest generation of Earth Scientists – MSc Students. Thus, funding is specifically for fieldwork that forms part of a Master's dissertation. **Up to 5 grants of €300 each** are awarded biannually to **IAS Student Members** who are **active MSc students**. Applications consist of a short fieldwork proposal and budget (written by the student), CV, a signed letter of support from the student's supervisor, and proof of MSc student enrolment. **Submission of applications is via the IAS website**, where guidelines and application forms can be found.

IAS International Institutional Grants



The IAS offers twice-yearly **International Institutional Grants** to assist Earth Science departments in low and lower-middle income countries (as defined by the World Bank) to obtain **sedimentological equipment for teaching and research**, and/or tools that can be used by all geology students.

These grants are **up to a maximum of 10,000 Euro each**. The IAS purchases the equipment and pays for its shipping. Guidelines for applications can be found on the IAS website along with the list of eligible countries. Successful grant applications will clearly demonstrate how the grant will increase the recipient's capacity to teach sedimentology at undergraduate level in a sustainable way. Applications must be from active IAS Members and submitted via the IAS website, and it is very important to follow the guidelines and provide all the information required. More information is available via IAS Regional Correspondents for applicant's countries or via the **website contact form**.

These grants are a fantastic opportunity to build capacity in Earth Science departments where institutional funding may be limited. **They are usually under subscribed so there is a high chance of success for well-prepared applications that meet the criteria and guidelines!**

For an excellent example of how the grants are used please see the item by Dr Eric Ekoko Bokanda from the University of Buea, Cameroon in the **May Newsletter**.

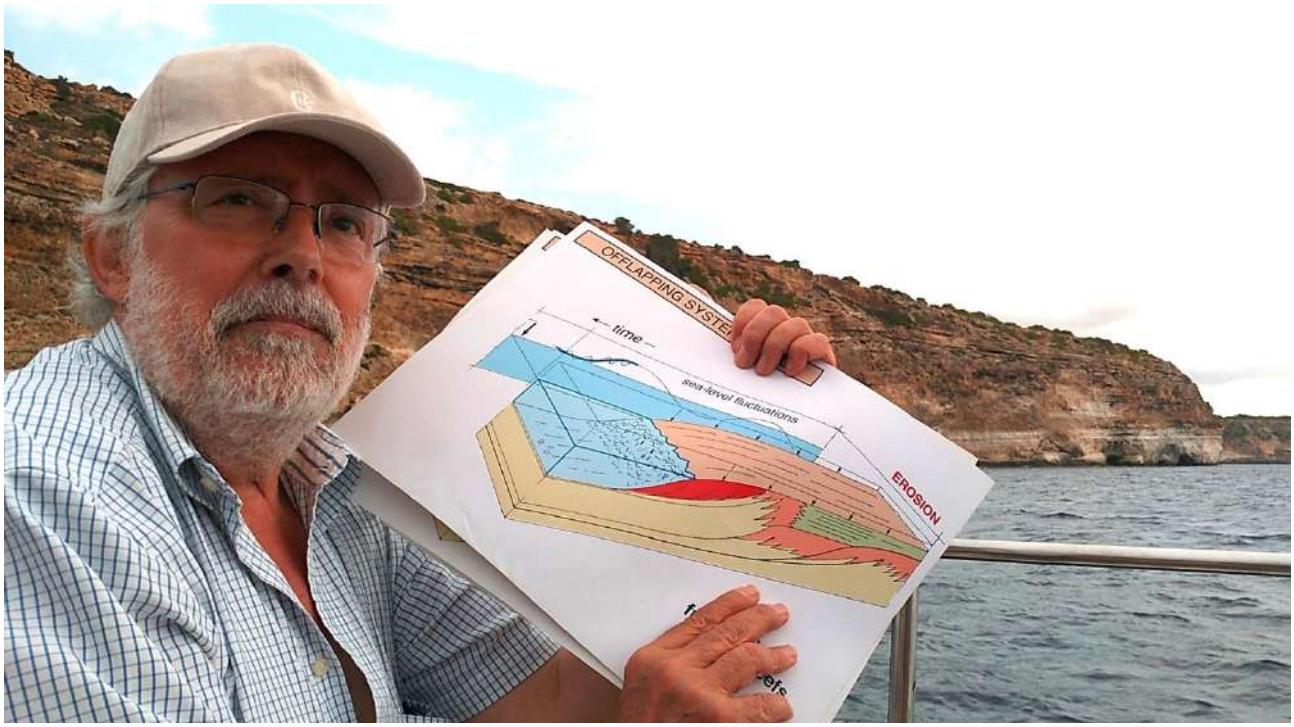
The deadline for Institutional Grant applications is 30th September 2024 at 24h00 CET (UTC+1).

Obituary – Luis Pomar

On 3rd August 2024, Luis Pomar died in Palma (Mallorca, Spain) after a long illness that little by little had undermined his health over the last ten years, although during the last few months his life was enlightened by the presence of his grandson Álvaro. To all those in the academia and industry who have had the opportunity to share research, teaching, leisure times and even vivid discussions with Luis Pomar, the fatal news has been hard to assimilate. And despite the inevitable sadness that this situation caused, we want to dedicate a few lines to praise among the IAS community some of his most notable achievements in Geology, and more particularly in the knowledge of the intriguing world of carbonate rocks.

Luis Pomar was born in 1949 in Torres del Segre (Lleida, Spain), a small town in the foothills of the Pyrenees, within a large family with nine siblings. During his childhood and adolescence, Luis had the opportunity to visit with his family many Pyrenean mountains and valleys, where he soon became fascinated by that group of complex rocks called limestones, in which he observed countless types of fossils of the organisms that inhabited Cretaceous and Paleogene oceans. These findings greatly impacted his awakened imagination and, as he said, were the main reason behind the decision to study Geology, in one of the most prestigious

academic institutions in Spain, as it was and remains: the University of Barcelona. There, he shared classes and field courses with other enthusiastic students and young lecturers (i.e., Francesc Calvet, Toni Obrador, Mateu Esteban, among others), and earned his PhD in 1976, with the presentation of the Thesis entitled *"Telodiagenetic processes on carbonate rocks along the Catalonian and Balearic coasts: relationships with microbial activity",* to a great extent focused on the role and effects of lichens colonizing carbonate substrates along rocky coastlines. In the same year, he got a position at the Faculty of Sciences of Palma, then dependent on the Autonomous University of Barcelona, and being part of the foundation that shortly after became the University of the Balearic Islands, where he stayed teaching until retirement in 2019, firstly as lecturer and since 1988, as Full Professor in Stratigraphy and Applied Carbonate Sedimentology.



The scientific work of Luis Pomar during these 43 years is inevitably associated to the Miocene reef complex exposed along the southern coastal cliffs of Mallorca Island and, most particularly, to the impressive outcrops of Cap Blanc, the main *leitmotiv* of his conceptual development in carbonate sedimentology. It is true that the Miocene reefs of Cap Blanc acted as the seed of his particular way to observe and interpret carbonate rocks, which Luis always liked to summarize with a simple assertion: *understanding limestones mostly implies thinking in processes, not in models*.

Thus, it could be stated that Luis's most notable contribution to the study of carbonates has been his ability to read and interpret them, incorporating an ecological perspective in the broadest sense of the concept into the processes that control their formation, transport, and accumulation. His amazing ability to synthesize and describe concepts visually were integral to how he shared his views with others. His revolutionary and often unorthodox vision reflects a restless and nonconformist personality, one who considered that for advancing knowledge, the question is more important than the possible answers. As a result of analysing the examples he studied throughout his career and collaborating with colleagues and friends such as Pamela Hallock, who helped Luis further consider the importance of ecological processes in the study of carbonates, Luis sought to decipher the conundrum that carbonates represent: they are the product of the interaction between biological factors, which change over time throughout the evolution of life, and physical-chemical parameters, which are much less variable. Consequently, each example is unique, and for proper interpretation, the analysis must focus on the process rather than on searching for examples to be applied as models, often biased by an excessively uniformitarian perspective. Luis's ability to focus on the uniqueness

of each example, concentrating on the factors that control carbonate production and how the response of different factories to hydrodynamism is reflected in the final product—the rock—has increased predictability in hydrocarbon exploration in carbonate deposits, as demonstrated by his work in Saudi Arabia and the Perla field (offshore Venezuela).

Under this personal view, he was able to coin novel concepts, such as *ecological accommodation*, largely conceived through a critical comparison of the Tortonian rhodalgal-dominated ramps of Menorca and the overlying Tortonian-Messinian reef-rimmed shelf exposed at Mallorca, and he even developed a practical methodology to face carbonate successions based on the *process-product interrelationships*. These goals were attained sharing fieldwork and concerns with other reputed geologists, as well as some of his best friends, including Francesc Calvet, Mateu Esteban, Toni Obrador, Alfredo Barón, Hildegard Westphal, Marco Brandano, Chris Kendall and, most particularly, Bill Ward. The huge amount of information distilled from the impressive Miocene reef systems of Mallorca, including composition and facies arrangement, growth geometries at different scales, detailed record of sea level changes and associated diagenetic products, became the benchmark database for a multitude of class and field courses for the academia and the industry developed during more than three decades, during which hundreds of junior and senior geoscientists have had the opportunity to visit and observe personally the full complexity of these carbonate successions and the approach that can be used to decipher their small- to large-scale architecture at both outcrop and in the subsurface.

In the 2000s, Luis Pomar returned to the Pyrenees to restudy upper Cretaceous coral-rudist bearing limestones, followed by the analysis of intriguing Eocene mesophotic coral buildups and *Nummulite* banks, different units of coral-sponge-microbialite buildups, oolitic wedges and internalite grainstones in the upper Jurassic of the Iberian range, microbial buildups in the Miocene of Mallorca, and the study of infralittoral wedges and several examples of coral-bearing ramps along central and southern Italy, among others. The list of tireless researchers who accompanied Luis in these efforts is long, and we refrain from mentioning specific names to avoid leaving anyone out.

In 2018, Luis Pomar was distinguished with the **Sorby Medal**, the highest award of the International Association of Sedimentologists. This nomination was agreed by the scientific committee following a proposal by V. Paul Wright and the personal support of other seven distinguished senior members of the association. To express the scientific meaning of this recognition, we want to finish this modest obituary using some of the words of Paul Wright at the presentation of Luis Pomar in the formal ceremony during the International Sedimentological Congress held at Quebec in August 2018: *It is the measure of Luis Pomar's contribution that it would be difficult, if not impossible, to imagine where carbonate sedimentology of the 21st Century would be if Luis Pomar had not been providing fundamental insights into the processes, physical and biological, that have produced the carbonate stratigraphic record, from the global, to seismic to outcrop scale.*

Guillem Mateu-Vicens, Universitat de les Illes Balears, Spain

Juan Ignacio Baceta, Universidad del País Vasco-Euskal Herriko Unibertsitatea, Spain

IAS at GSA Connects

THE GEOLOGICAL SOCIETY OF AMERICA®
CONNECTS 2024
22–25 September
Anaheim, California, USA

If you are going to be at GSA Connects 2024 in Anaheim, California, 22 – 25 September, please come and say hello at the IAS booth 513 in the exhibition hall. Our Special Publications and "The Depositional Record" Editor will be available during the conference to answer questions on publishing with IAS.

22nd International Sedimentological Congress, Aotearoa New Zealand

On behalf of the International Association of Sedimentologists (IAS), the local organizing committee warmly invites you to join us for the 22nd International Sedimentological Congress (ISC) to be held in in Te Whanganui-a-Tara Wellington in January 2026. **Click here** to register you interest and receive updates. The theme of the Congress is **Sedimentation on active plate margins through time and space** and we envisage encompassing a range of topics related to active margin sedimentation as well as a wide variety of other sedimentology themes – whatever your sedimentological interests, from modern into deep time, terrestrial to deep marine, glacial to tropical, and from mega- to micro-scale there will be plenty for you to enjoy.

You can follow developments on the **conference website**, where there is a **welcome video** from the Committee and you can join a **mailing list**. We also recommend the the **100% Pure New Zealand website** and the **WellingtonNZ website** for ideas of activities and locations in Aotearoa New Zealand to complement your trip to the ISC. If you are interested in becoming a **sponsor or exhibitor** at the ISC please email **isc2026@confer.co.nz** to receive a copy of the sponsorship and exhibition prospectus.

Do make a note of these **Key Dates**

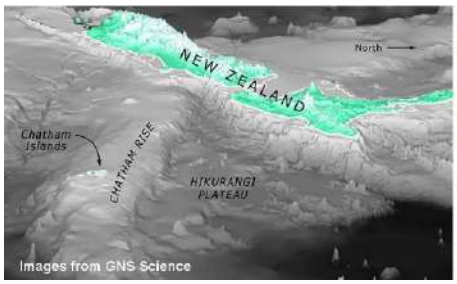
- **Session/Workshop Submission Deadline**: 25 October 2024
- **Session/Workshop Acceptance Notification**: 29 November 2024
- **Abstract Submission Opens**: January 2025
- **Registration Opens**: March 2025
- **Abstract Submission Deadline**: 16 May 2025
- **Authors Acceptance Notification**: 15 August 2025
- **Early Registration Deadline**: 19 September 2025

In this Newsletter we focus on just ***some*** of the spectacular **field trips** that are planned for the 22nd ISC.

Exploring Zealandia Geology

Situated astride a convergent boundary between the Pacific and Australian plates, Aotearoa New Zealand is a diverse and active geological setting, hence the conference theme of "Sedimentation on an active plate margin through time and space". Outside of the conference presentation programme, this will be highlighted in a range of two hour to eight-day conference field trips and workshops that will complement one or more of the conference sub-themes. Below we summarize three of the main multi-day field trips we are planning to run. There will be more!

TRIP 1: A highlight will be the rare opportunity to visit a remote outpost of Southern Gondwana and Eastern Zealandia on the remote Chatham Islands (Rēkohu Wharekauri), 800 km east of the New Zealand main islands. On Rēkohu Wharekauri submarine and subaerial sedimentary rocks and intraplate volcanogenic rocks provide a unique window into Zealandia origins.




TRIP 2: On the mainland, you will get to see the stunning coastal and inland outcrops of the Taranaki region in the western North Island (Te Ika-a-Māui), which showcase the onset and evolution of deep-water clastic deposition, starting particularly in the Miocene, including a myriad of mass-transport deposits that formed as the Hikurangi Subduction Margin developed. In addition, we will examine Pleistocene volcaniclastic and fluvial deposits associated with back-arc volcanism and examine the interplay between active surface processes and volcanic eruptions.

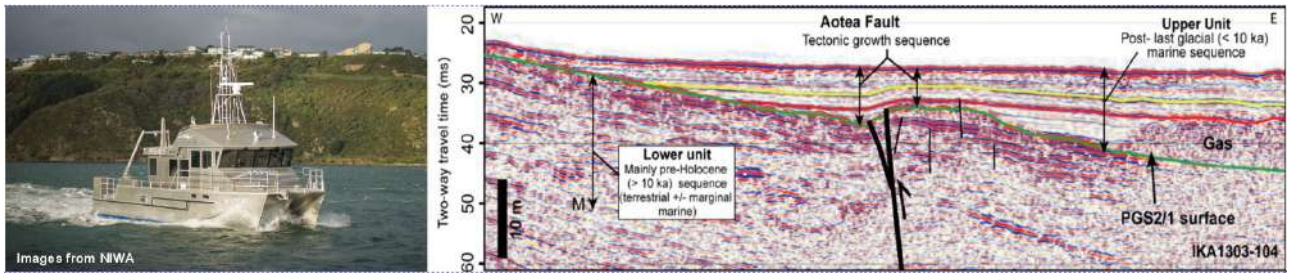
Trip 3: The southeastern North Island is where you will see the close linkages between basin tectonism and sedimentation. The modern Hikurangi forearc basin is superimposed on the Late Cretaceous eastern Gondwana forearc basin. This trip spans several sites which assess the stratigraphic evolution of the East Coast Basin through the evolution of the active Gondwana forearc basin, through Latest Cretaceous-Paleogene quiescence, to initial stirrings of tectonism in the Eocene, right through to carbonate reef formation on structural highs during Pliocene-Pleistocene syn-tectonic deformation.



Several **local excursions** will also be held during the conference week and include:

- A walking tour of the Wellington waterfront to explore the interplay of tectonics, sedimentation and reclamation efforts and how these are related to both opportunities and hazards of living in Wellington city.

- A chance to board NIWA's coastal research vessel RV *Ikatere* to investigate submarine geological features in Te Whanganui-a-Tara Wellington Harbour using multibeam and sub-bottom profiling systems, highlighting new shallow water geophysical techniques for characterising marine geological processes.



*RV Ikatere on the water and example of a shallow Boomer seismic reflection profile across the Aotea Fault in inner Te Whanganui-a-Tara Wellington Harbour (image from **Barnes et al., 2018**).*

- A visit to the national core store to view a range of notable drill cores recovered from sedimentary basins around Aotearoa New Zealand.


We look forward to welcoming all of you to New Zealand in 2026!

Email:

isc2026@confer.co.nz

Website:

https://confer.co.nz/isc2026/

North Sea Core for Teaching – Second Round Closing Date 31st December

NORTH SEA CORE

The IAS in collaboration with North Sea Core CIC is pleased to **sponsor the distribution of core samples for teaching** from a range of depositional environments to academic institutions that do not necessarily have the funds to acquire these themselves. The scheme is open to **IAS Ordinary Members**, who apply on behalf of their institutions. Any core samples granted will remain the property of the institution to be used exclusively for teaching. Twenty (20) sets of core samples will be awarded each year, with shipping costs covered by the scheme.

Applicants will be able to select from three possible packages: **Hand Samples**, **Resinated Slabs**, or **Combination**. Details of these packages can be found **here**.

Applications are made through **Member profiles** on the IAS website, where more details of the scheme can also be found. The next call for applications closes on **31st December 2024**.

Applications will be evaluated by a sub-committee of the IAS Council of Management and NSC. Strong preference will be given to institutions that are financially or logistically unable to acquire these sets or similar materials themselves, and where the core samples will be most extensively utilised and strongly benefit the teaching programme.

Proposing a Sponsored Meeting

Any IAS Member organising a sedimentological conference or international workshop, short course or field excursion on a sedimentology-related theme is entitled to apply for IAS sponsorship.

This is typically provided as Travel Grants to assist Student Members to participate in the meeting, plus publicity / marketing via the IAS Newsletter, social media channels and website. Application is a simple process, made through your profile on the IAS website. **Guidelines and application forms can be found here**.

Applications for IAS sponsorship must be received at least 6 months before the meeting registration deadline. Please be aware that meetings overlapping the dates of an IMS / ISC are unlikely to be supported.

In certain circumstances it is possible to apply for direct sponsorship, especially when the meeting will be a significant outreach event to help grow the Association. In such cases we recommend contacting the IAS in advance.

Forthcoming IAS International Meetings and IAS Sponsored Meetings

In **2025** the **38th IMS** will be on 26th – 28th June in **Huelva**, Spain

In **2026** the **22nd ISC** will be on 25th – 30th January in **Wellington**, Aotearoa - New Zealand.

In **2027** the **39th IMS** will be on 14th – 16th June in **Çeşme/Izmir**, Türkiye.

In **2028** the **40th IMS** will be in Patras, Greece (dates to be confirmed).

The IAS Council of Management have received a proposal to organise the 2029 IMS but welcome offers to host the next ISC in **2030**. if you are interested and wish to discuss further please use the **contact form** to let us know.

Sponsored Meetings

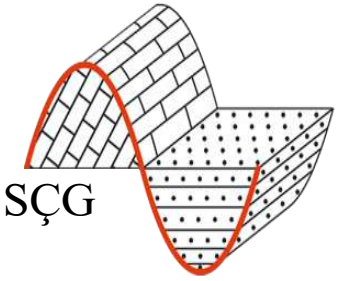
So far in 2024 the IAS is sponsoring the following meetings, either via Travel Grants to IAS Student Members or direct (logistical)sponsorship:

13th International Symposium on Fossil Algae

2nd – 6th September 2024, La Castella, Italy.

Registration is now closed.

Detailed information on the website and in the **July IAS newsletter**.



Turkish Sedimentology Working Group Workshop 2024

5th – 8th September 2024, Munzur University, Tunceli, Türkiye.

The Turkish Sedimentology Working Group meets every year and welcomes international participants. This year's meeting is sponsored by the IAS and is on the theme of **Strategic Sedimentary Raw Materials**. The deadline for abstract submission is 01 July 2024. Join us for an enriching experience as we delve into the fascinating world of sedimentology in Tunceli, one of the best historical and natural places in Anatolia.

Core Logging School COLOS

15th – 18th September 2024, European Centre for Geological Education, Holy Cross Mountains, Poland

Registration is now closed.

This School is held by the Polish Geological Society with lectures in the **European Centre for Geological Education** in Checiny and practical activities in the **Central Core Depository** in Chmielnik. The COLOS Programme integrates theoretical background of sedimentological borehole core logging, examples of applications and hands-on exercises.

1st Advanced Course on Deep Water Sedimentary Systems

23rd – 28th September 2024, Parque de las Ciencias, Granada, Spain.

Registration deadline 31st August 2024.

Detailed information on the website and in the **July IAS newsletter**.

Sedimentology Without Borders (CAMASED 2)

24th- 26th October 2024, University of Buea, Cameroon

Student Travel Grants are available – closing date 26th September 2024. Please contact the **Meeting Organiser** directly for the Guidelines document and Application form (these are not available through the IAS website).

IAS Journals – Current Contents

Sedimentology Current Issue (August 2024)

Autogenic evolution of valley-confined deltas during sea-level rise: Insights from numerical and physical modelling

Ru Wang, Wonsuck Kim, Luca Colombera, Nigel P. Mountney, Yunhyeong Lee, Jaehyung Lee

Organic matter influence on ooid formation: New insights into classic examples (Great Salt Lake, USA; Triassic Germanic Basin, Germany)

Yu Pei, Pablo Suarez-Gonzalez, Jan-Peter Duda, Joachim Reitner

Origin, evolution and significance of giant buried sediment mounds near the Sahara Slide Complex, North-west African margin

Wei Li, Sebastian Krastel, Tiago M. Alves, Song Jing, Michele Rebesco, Felix Gross, Morelia Urlaub, Aggeliki Georgiopoulou

Late-Holocene counterpoint deposition in the Lower Rhine River

Lisa Boterman, Jasper Candel, Bart Makaske, Jakob Wallinga

Eocene monsoon climate expansion in East Asia: Evidence from orbital-cycle driven terrestrial successions in the Jianghan Basin, Central China

Yuan Cai, Xiangxin Kong

Testing magnetic tracers as indicators of sediment transport in a wave flume experiment

Soraia Romão, João Cascalho, Caroline C. Ferreira, Eric Font, Rui Taborda, Paulo A. Silva, João F. Duarte, Franziska Staudt

High-frequency palaeoenvironmental changes in the mixed siliciclastic–carbonate sedimentary system from a lower Permian restricted basin (West Gondwana, southern Brazil)

Ailton S. Brito, Afonso C. R. Nogueira, Renan F. Dos Santos, Rômulo S. Angélica, René Rodrigues

Carbonate microbialites and chemotrophic microbes: Insights from caves from south-east China

Min Ren, Brian Jones, Xiaomin Nie, Xin Lin, Chuang Meng

Morphodynamics and depositional architecture of mid-channel bars in large Amazonian rivers

Renato P. Almeida, Cristiano P. Galeazzi, Jim Best, Marco Ianniruberto, Ariel H. Do Prado, Liliane Janikian, Carlos E. M. Mazoca, Larissa N. Tamura, Andrew Nicholas

The hidden biotic face of microbialite morphogenesis – a case study from Laguna de Los Cisnes, southernmost Patagonia (Chile)

Clément G. L. Pollier, Alejandro N. Guerrero, Jorge Rabassa, Daniel Ariztegui

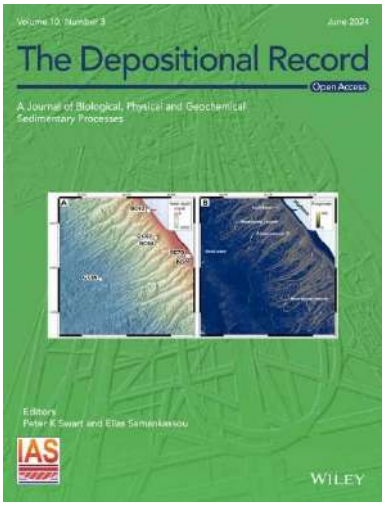
Evolving fill-and-spill patterns across linked early post-rift depocentres control lobe characteristics: Los Molles Formation, Argentina

Aurélia M-L. J. Privat, Jeff Peakall, David M. Hodgson, Ernesto Schwarz, Christopher A-L. Jackson, Jonatan A. Arnol

Grain-size component dependent storage threshold of orbital cycles in alluvial stratigraphy caused by autogenic dynamics

Daming Yang, Yongjian Huang, Xiang Li, Jianlei Gao, Shitao Yin, Chengshan Wang

The Depositional Record Current Issue (June 2024)



Chronostratigraphy and tectono-sedimentary history of the Eastern South Pyrenean foreland basin (Ripoll Syncline, North-East Spain)
Philémon Juvany, Miguel Garcés, Miguel Lopez-Blanco, Carles Martín Closas, Elisabet Beamud Amorós, Josep Tosquella, Susanna Emilia Bekkevold

Evolution of a late Quaternary succession by interpretation of high-resolution seismic and bathymetric data, Adriatic Sea
Federico Da Col, Massimo Zecchin, Dario Civile, Luca Baradello, Michele Deponte, Flavio Accaino

Changes in mesophotic carbonate-platform export across the end of the last glacial cycle (Saya de Malha Bank, western Indian Ocean)
Or M. Bialik, Christian Betzler, Juan Carlos Braga, John J. G. Reijmer, Jesus Reolid, Sebastian Lindhorst

The Depositional Record is a **fully open access journal** publishing high quality articles from across the field of sedimentology. It has an impact factor of 1.9 (2023) and 51 days average submission to first decision. The journal covers all timescales, from Ancient to Modern Earth and welcomes articles that emphasise the application of sedimentary processes to the study of paleoclimate, changes in the chemical environment, ocean acidification, extra-terrestrial sedimentology, and the application of genetic methods to understanding sedimentological processes.

The Depositional Record also offers the opportunity to publish thematic **Special Issues**. Previous and currently open Special Issues can be viewed **here**.

Special issues – Call for papers!

Carbonate depositional environments: Past and future questions—A Tribute to the career of E.A. Shinn

We are honoring Gene's career and contributions with a special issue of the *Depositional Record*. We envision an issue that devotes space to both overviews of the state of knowledge and technical contributions on current research on those problems Gene found most interesting and vexing, including the origin of whitings, modern dolomite, stromatolites, beachrock, coral reef demise, karst and carbonate aquifers, deepwater reefs, carbonate island development and paleoshorelines and sea-level change. Guest editors are Lee Kump, Miquela Ingalls, and Albert C. Hine.

For more information on this special issue and how to submit your paper, please **click here**. The submission deadline is 15th December 2024.

Beyond Boundaries: Honoring the Legacy of Judith A. McKenzie in Earth Sciences

The distinguished sedimentologist and geochemist Judith A. McKenzie passed suddenly away on August 2023. Her pioneering research in sedimentology, geochemistry, and microbiology has left an indelible mark, inspiring a wealth of innovative discoveries and shaping diverse fields within earth sciences.

We are honoring Judy's career and contributions with a special issue of The Depositional Record. We aim to showcase overviews of the current state of knowledge and technical contributions in areas central to Judy's research pursuits such as exploring the mechanisms and processes underlying dolomite formation; the significance of microbialites in understanding ancient environments and their role as archives of Earth's history; the dynamics of sediment deposition in lakes and oceans and their implications for understanding past climate and environmental changes including the deep biosphere; the Mediterranean, one of Judy's favorite research areas, that she started investigating in her early career but she promoted it until the end; and the application of new techniques and approaches, such as clumped isotopes, to address unresolved questions in sedimentology, geochemistry, and microbiology.

We invite contributions of original research articles, reviews, and perspectives reflecting Judy's pioneering spirit and legacy. Guest editors are Daniel Ariztegui, Stefano Bernasconi, Monica Sanchez Roman, and Crisogono Vasconcelos.

For more information on this special issue and how to submit your paper, please **click here**. The submission deadline is 30th March 2025.

Basin Research Current Issue (July - August 2024)

Late syn-rift to early post-rift basin fill dynamics of a mixed siliciclastic-carbonate succession banked to a basement high, Hornsund, southwestern Spitsbergen, Arctic Norway

Anders Dahlin, Kasper H. Blinkenberg, Alvar Braathen, Snorre Olaussen, Kim Senger, Aleksandra Smyrak-Sikora, Lars Stemmerik

Geomorphological traits of landscapes in continental rifts—From fault-elastic rebound to sedimentary sinks

Alvar Braathen, Ivar Midtkandal, Per Terje Osmundsen

New insights into the structural and stratigraphic evolution of the Malay Basin using 3D seismic data: Implications for regional carbon capture and storage potential

Iain de Jonge-Anderson, Ana Widyanita, Andreas Busch, Florian Doster, Uisdean Nicholson

Characterization and mapping of continental breakup and seafloor spreading initiation: The example of the northern rifted margin of the South China Sea

Cuimei Zhang, Gianreto Manatschal, Brian Taylor, Zhen Sun, Minghui Zhao, Jiazheng Zhang

Unravelling controls on multi-source-to-sink systems: A stratigraphic forward model of the early–middle Cenozoic of the SW Barents Sea

Amando P. E. Lasabuda, Domenico Chiarella, Tor O. Sømme, Sten-Andreas Grundvåg, Anthony G. Doré, Grandika Primadani, Tom Arne Rydningen, Jan Sverre Laberg, Alfred Hanssen

Miocene sequences and depocentres in the Roer Valley Rift System

Alexandra Siebels, Johan ten Veen, Dirk Munsterman, Jef Deckers, Cornelis Kasse, Ronald van Balen

Spatial distribution of bedforms and related flow processes around canyon mouths: Insights from the Rovuma Basin (offshore Mozambique)

Yuhang Chen, Yintao Lu, Xiaofeng Wang, Guozhang Fan, Lin Li, Xiaoyong Xu, Guoping Zuo, Dali Shao, Quanbin Cao

Initiation and evolution of an epicontinental shelf-slope margin in an actively contracting deep-water basin: The Eocene Aínsa Basin, southern Pyrenees (Spain)

Ashley J. M. Ayckbourne, Rhodri M. Jerrett, Matthew P. Watkinson, Miquel Poyatos-Moré, Ian A. Kane, Stephen Covey-Crump, Kevin G. Taylor

New insights into the structure of the Yinggehai Basin and its tectonic implications, South China Sea: Evidence from scaled physical models

Gengxiong Yang, Hongwei Yin, Dong Jia, Hongbin Wang, Wei Wang, Wenqiao Xu

Tectono-sedimentary evolution of high-displacement crustal-scale normal faults and basement highs on rifted margins: Klakk Fault Complex and Frøya High, Mid-Norwegian Margin

Jhon M. Muñoz-Barrera, Rob Gawthorpe, Tim Cullen, Sofia Pechlivanidou, Gijs Henstra, Atle Rotevatn, Ian Sharp

Short-term climatic oscillations versus long-term delta propagation: Controls on sand transport into the deep Levant Basin since the Pliocene

Ido Sirota, Yoav Ben Dor, Zohar Gvirtzman

The contribution and impact of shallow water platform as a potential source area on siliceous submarine fans

Xiaobo Zheng, Hongtao Zhu, Qianghu Liu, Zhiwei Zeng, Zhongheng Sun, Caiwei Fan

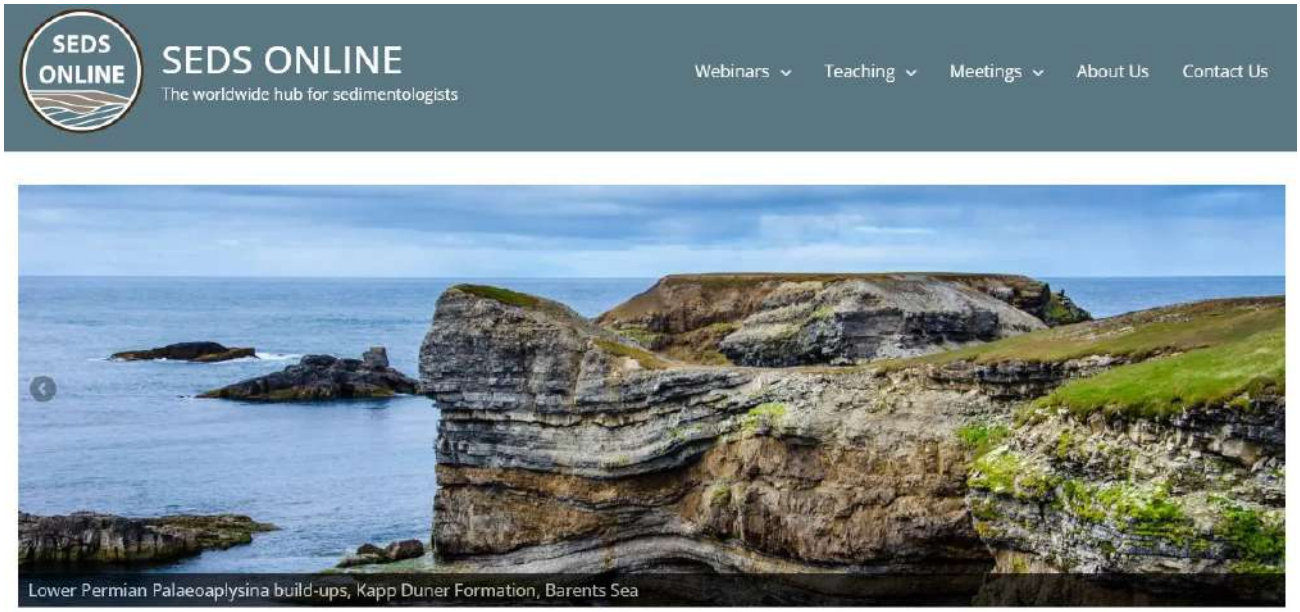
Palaeogeography and tectono-stratigraphic evolution of the Aptian Ezanga-Loémé evaporites along the proximal domain of the south Gabon-Congo-Cabinda margin

Alexandre Pichat, Vincent Delhaye-Prat, Michel Guiraud, Laurent Gindre-Chanu, Eric C. Gaucher

Overpressure-driven hydrofracture growth in the northern South China Sea

Qing Wang, Qiliang Sun, Kehua You, Martino Foschi

Online Resources Supported by the IAS



Seds Online is an exciting free initiative that provides an interactive, adaptable, and accessible online platform for anyone with an interest in the field of sedimentology. It welcomes members at any career stage, from both industry and academia. It provides:

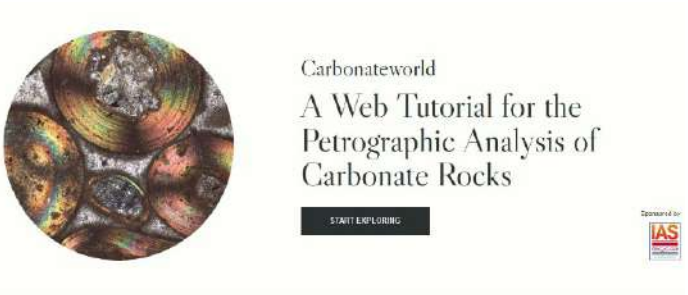
- **Free monthly webinars** on the latest sedimentology research (many of which are archived and available for viewing in a **video library**)
- **Opportunities for research students to present their work** in a friendly and enthusiastic forum.
- **Virtual "coffee breaks"** where sedimentologists can informally chat and interact.
- **Teaching resources** and **virtual conferences**

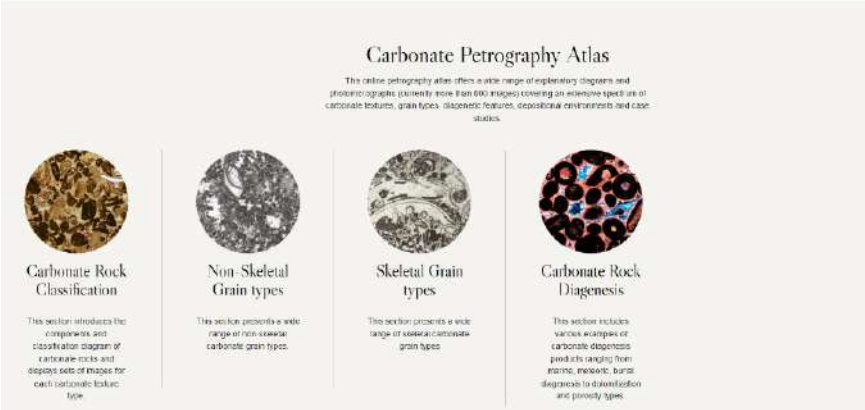
Find out more at **https://sedsonline.com** X (formerly Twitter) **@Seds_Online**

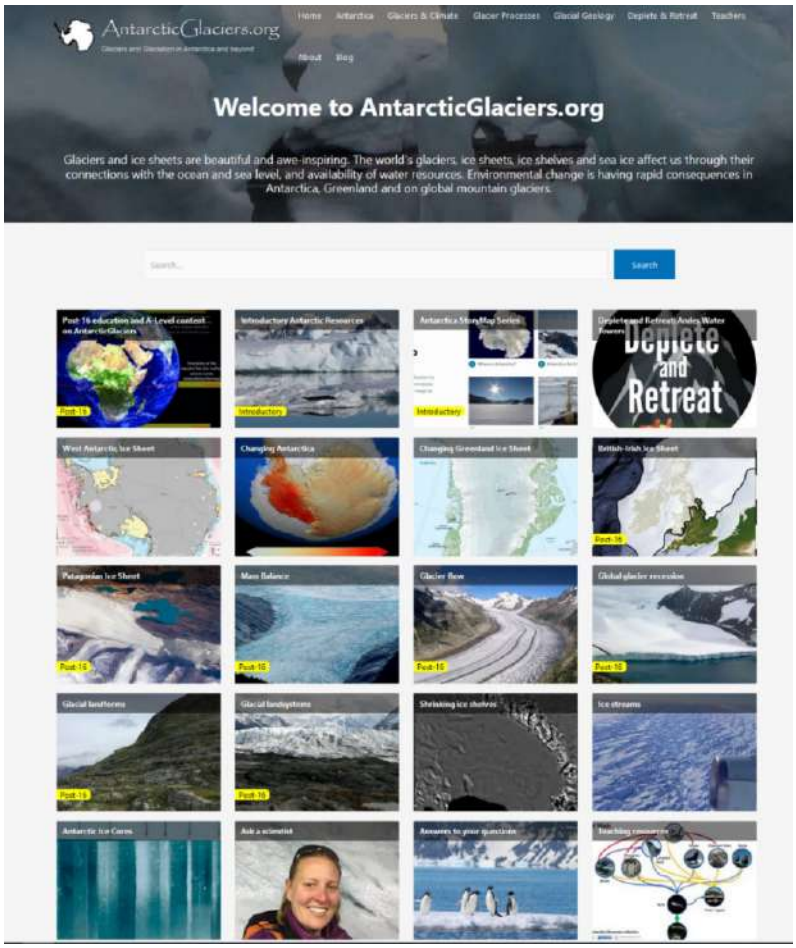
Carbonateworld is an online atlas with more than 800 images covering an extensive spectrum of carbonate textures, grain types, diagenetic features, depositional environments, and case studies.

The images are organised in categories and subcategories (e.g., carbonate rock classification, skeletal grains, ooids, corals, burial diagenesis etc.) and frequently updated with new material.

https://carbonateworld.com/







Antarctic Glaciers is a fabulous resource for anyone interested in global glacial processes, landforms, and sedimentology – despite the name, this site extends way beyond Antarctica. It includes a wealth of educational resources, information on climate change and sea level rise, Antarctic data sets, a blog and and opportunities to "ask a scientist" about anything to do with Antarctica and glacial systems.

https://www.antarcticglaciers.org/

The **Tidalites Scientific Group** is a loose association of individuals who are specifically interested in the dynamics of the water-level variations and water fluxes that are generated by tides, and also in the morphological features of modern and ancient sedimentary deposits that are produced by tidal currents. The community is represented by academia, research centres, government agencies, industry, and other institutions, with scientific or professional interest in Tidal Dynamics and Sedimentology of modern and ancient environments.

Among the activities the Group aims to promote are the endorsement of thematic conferences, seminars, laboratory activities, PhD opportunities and annual field courses focused on modern and ancient tidal environments, including the organization of the Tidalites congress every four years.

The IAS supports the Tidalites initiative by promoting its activities and welcoming proposals for publications arising from its events. Joining the Tidalites community is free – please follow **this link** to subscribe.

IAS Research Grant Reports

Postdoctoral Research Grant Scheme

Can grain-size distribution be a reliable proxy for interpreting orbital-scale cyclicity in slope sediments? – **Hannah Brooks**

Can grain-size distribution be a reliable proxy for interpreting orbital-scale cyclicity in slope sediments?

Hannah Brooks- IAS Postdoctoral Grant Report (2023 Session 1)

In order to tests the methods outlined in this project a pilot project was undertaken in October 2023. The purpose of this project was both to work out methods to split samples between 20 scientists for collaborative work (with the limited material that is available), and to test multiple methods for recognising climate driven cyclicity through several key geological time periods. I undertook this pilot project using a small postdoctoral grant from the International Association of Sedimentologists (IAS). My contribution involved using a Mastersizer 3000, laser diffraction grain-size analyser. To measure the bulk grain-size of the samples as well as treating the samples with acid and measuring grain-size without carbonate/ organic material. Various grain-size parameters were calculated from this data including the 'sortable silt', which is a proxy for current velocity.

This pilot project utilized 63 samples from site U1587 (3479 mbsl), located on the lower to-mid slope (Figure 1). Here we recovered a 567 m sequence of Upper Miocene to Holocene sediments that accumulated at rates between 6.5 and 11 cm/kyr. The ship-board age model was based on bio- and magnetostratigraphy, principally, nannofossil biozones (Hodell et al., 2023). Site U1587 is of particular interest because of its relatively high sedimentation rates and long continuous record at this site will permit climate reconstruction at high temporal resolution (e.g., millennial). This site therefore allows detailed analysis of intervals in the Pleistocene, Pliocene and the Messinian. These core sections showed decimetre scale, alternating colour, petrophysical and geochemical variations, interpreted as being potential formed by millennial-scale cyclicity. These intervals also had no observable hiatuses (based on sediment descriptions and nannofossil assemblages), and minimal drilling disturbance. Based on the shipboard age model (Hodell et al., 2023) these intervals span: 1 millennial-scale cycle through Early Pleistocene (2315-2380 ka); 1 millennial-scale cycle through the mid Pliocene (3920-3985 ka); and 3 millennial-scale cycles over the Messinian (5910-6040 ka). \

This project is still in progress and is being undertaken in collaboration with 19 other scientists on the cruise (see table 1), led by Professor Tim Herbert at Brown University

Scientist	Institution	Analysis
Bryce A. Mitsunaga	Brown University, USA	Biomarkers
Carlos A. Alvarez Zarikian	Texas A&M University, USA	Ostracod assemblage
Celeste T. Pallone	Lamont-Doherty Earth Observatory, USA	U-Th Isotopes
Chuang Xuan	University of Southampton, UK	Magnetostratigraphy and magnetic minerals
David Hodell	University of Cambridge, UK	Various isotopes- Benthic forams
Fatima F. Guedes Abrantes	University of Algarve, Portugal	Diatoms
Huai-Hsuan May Huang	Smithsonian Institution, USA	Ostracod assemblage
Jerry F. McManus	Lamont-Doherty Earth Observatory, USA	Sedigraph sortable silt (clay only)
Jiawang Wu	Sun Yat-Sen University, China	Clay minerology
Jimin Yu	Australian National University, Australia	Carbon isotopes
José-Abel Flores Villarejo	University of Salamanca, Spain	Nannofossils
Komal Verma	Banaeas Hindu University, India	Benthic Foram assemblage
Lucien Nana Yobo	Texas A & M	Sr Isotopes
Marion Y. Peral	Université de Bordeaux, France	Planktic Foram assemblage
Sophia K.V. Hines	Woods Hole Oceanographic Institute, USA	Nd isotopes
Timothy D. Herbert	Brown University, USA	Cyclostratigraphy
Viviane dos Santos Rocha	Northern Illinois University, USA	Sponge spicules
William B. Clark	University of Alabama, USA	Nannofossils
Xiaolei Pang	Peking University, China	Various isotopes- Planktic forams

Table 1- Collaborating scientist from Ex. 397, respective institutions, and the analysis they will perform.

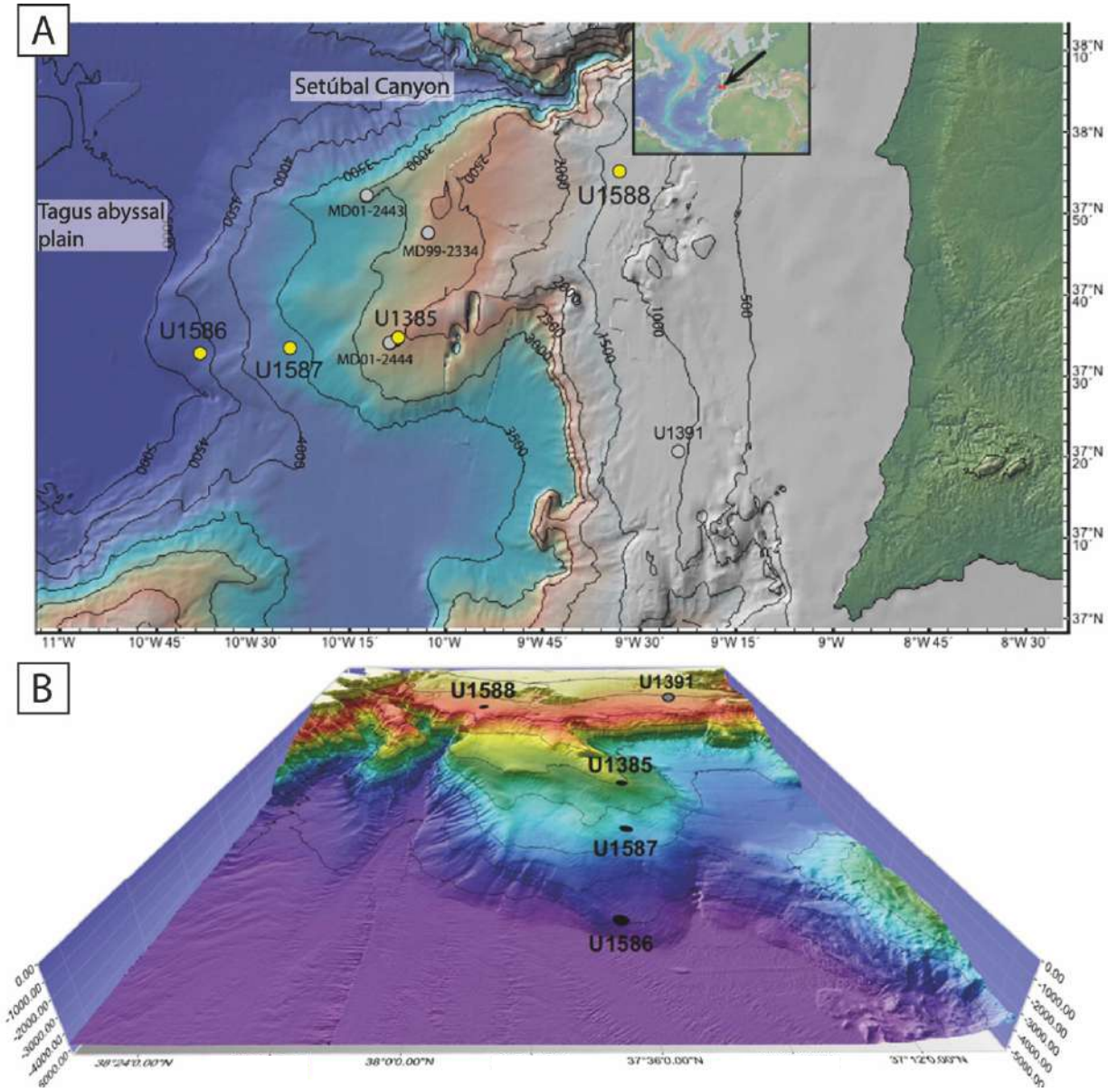


Figure 1- Location maps. A- Detailed bathymetry of Promontório dos Principes de Avis (PPA) (Zitellini et al., 2009) showing the coring-site locations of Ex. 397 (yellow circles), the Marion Dufrense (MD) piston cores, and the IODP site U1392 (grey circle). Inset map indicates location of study area in the East Atlantic, offshore Portugal. B- Bathymetry 3D-cube of on the PPA looking onshore to the east. The sites are aligned along a depth transect from the shallowest (Site U1588) at 1339 metres below sea-level (mbsl) to the deepest (Site U1586) at 4691 mbsl (Figures modified from Ex. 397 initial report, Hodell et al, 2023).

I used the grant funding for this preliminary study to test my methodology that I will also use for the wider project. This involved the preparation and sub-sampling of the samples (a mixture of wet and dry samples), treating the samples with acid to remove carbonate material and comparing the full sample with the acidified sample. The sortable silt values were then calculated according to McCave et al. (2017).

Method

Grain-size analysis: Samples of sediment were collected from the sediment cores. An aliquot of the sample wasvtaken, a solution was added to de-flocculate clay particles, and the sample placed in an ultrasonic bath to disaggregate individual grains. A second aliquot of the sample was prepared with acid to dissolve carbonate material. When the sample was disaggregated,

it was placed in a laser-diffraction grain-size analyser. The output information shows the spread and frequency of various grain-sizes in the sample. The difference between frequency and spread of grain-size between these two samples shows the corresponding siliciclastic and carbonate proportions of the sediment. Important values include: d(50), the average grain-size; d(10) and d(90), used to assess the particle size distribution; average standard deviation (ASD), used as proxy for sorting; percent of the clay and silt particles, important for assessing flow parameters; percent of particles between 10 and 63 μm and d(50) of this interval, which are various 'Sortable silt' parameters used as a proxy for current speed.

Results and preliminary interpretations

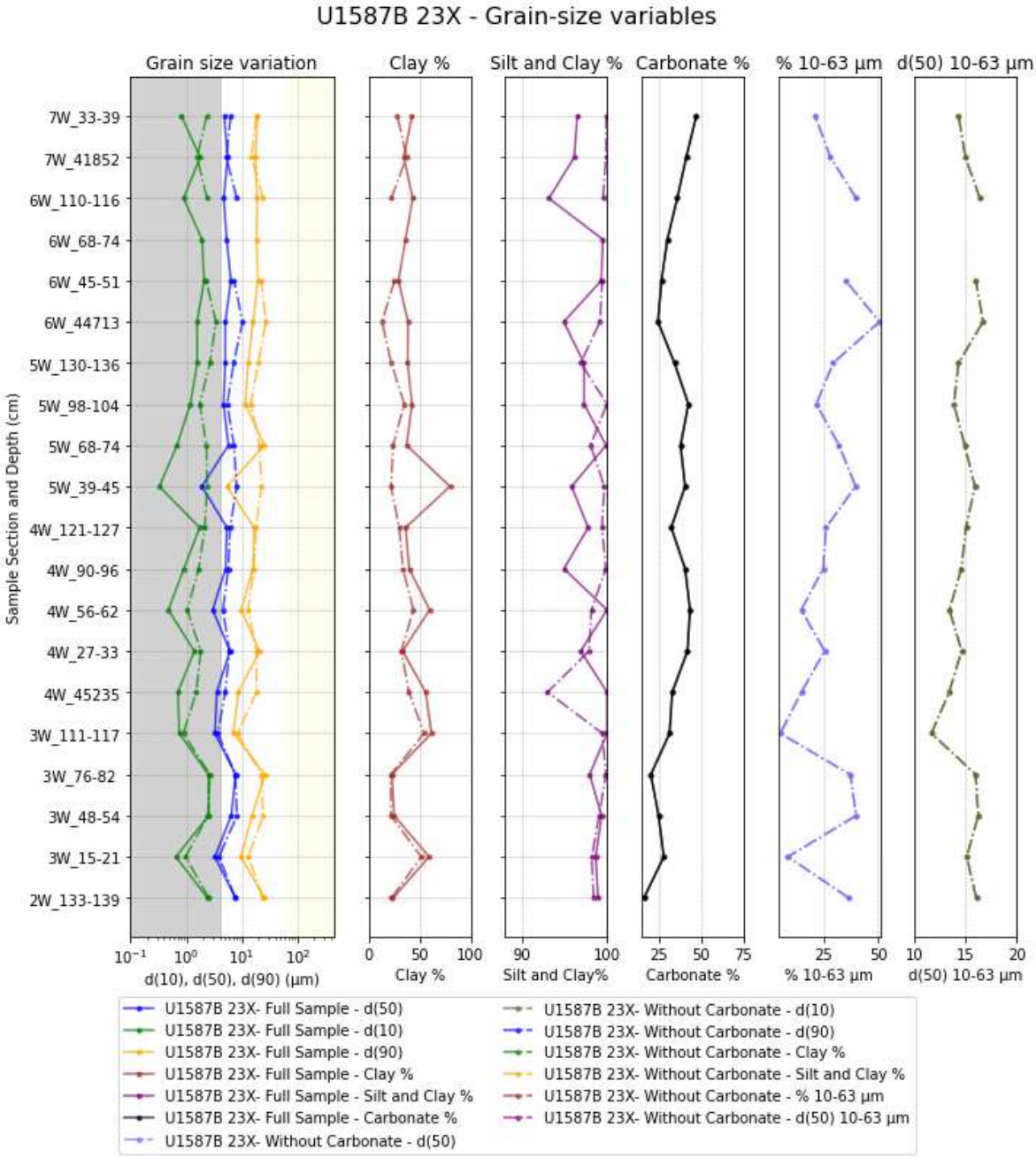


Figure 2- Grain size variables for Early Pleistocene interval of pilot project. Column 1- the 10th, 50th and 90th percentile for each sample. Column 2- the percentage of same under 4□m. Column 3- The percentage of the sample under 63□m. 4- Carbonate percentage, from combined bulk sample and fine fraction (David Hodell, person communication). Column 5- percentage of the sample within the 'sortable silt' window, sample without carbonate only. Column 6- 50th percentile of sample that is within the 'sortable silt' window.

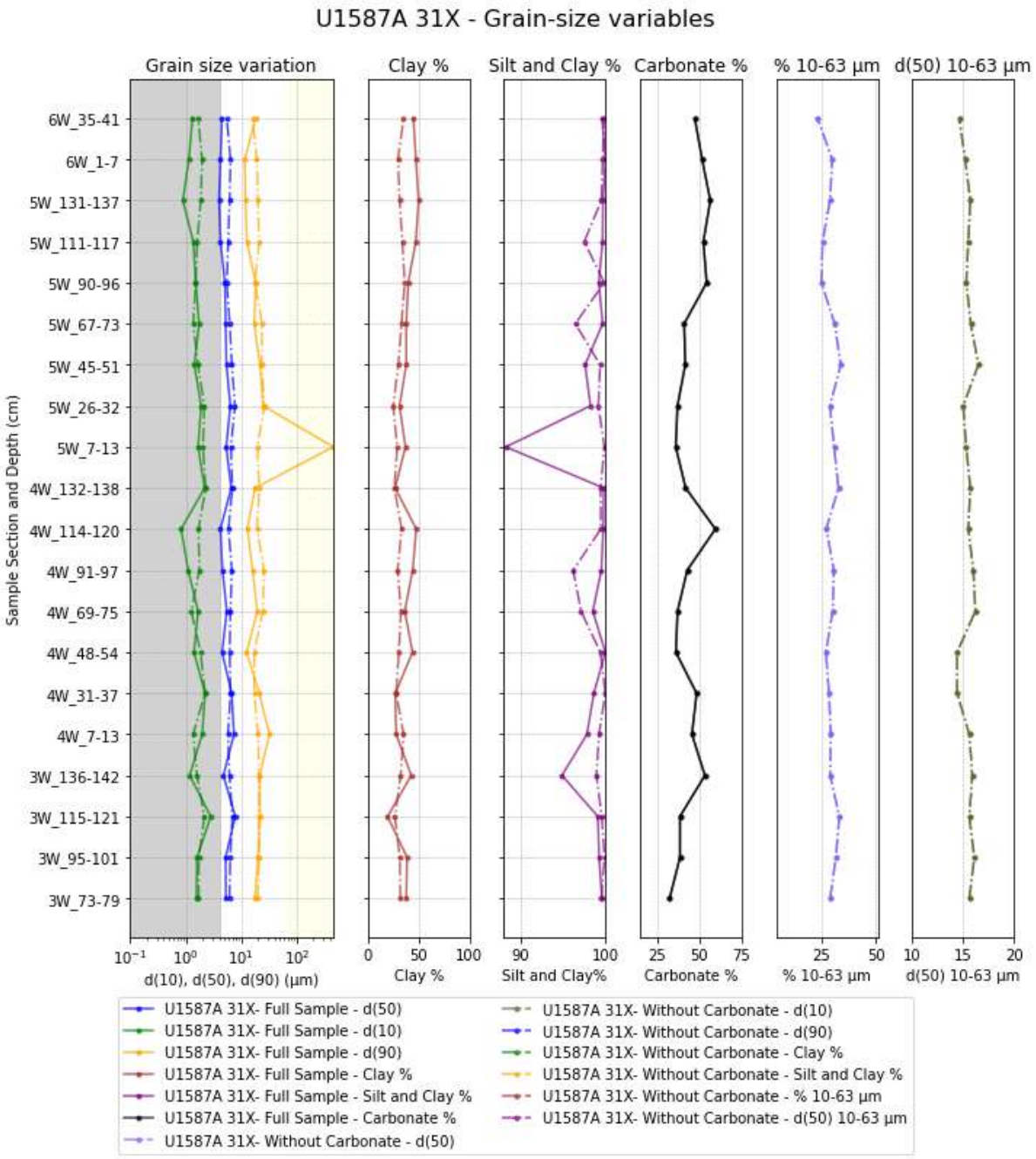


Figure 3- Grain size variables for Mid Pliocene interval of pilot project. Column 1- the 10th, 50th and 90th percentile for each sample. Column 2- the percentage of same under 4□m. Column 3- The percentage of the sample under 63□m. 4- Carbonate percentage, from combined bulk sample and fine fraction (David Hodell, person communication). Column 5- percentage of the sample within the 'sortable silt' window, sample without carbonate only. Column 6- 50th percentile of sample that is within the 'sortable silt' window.

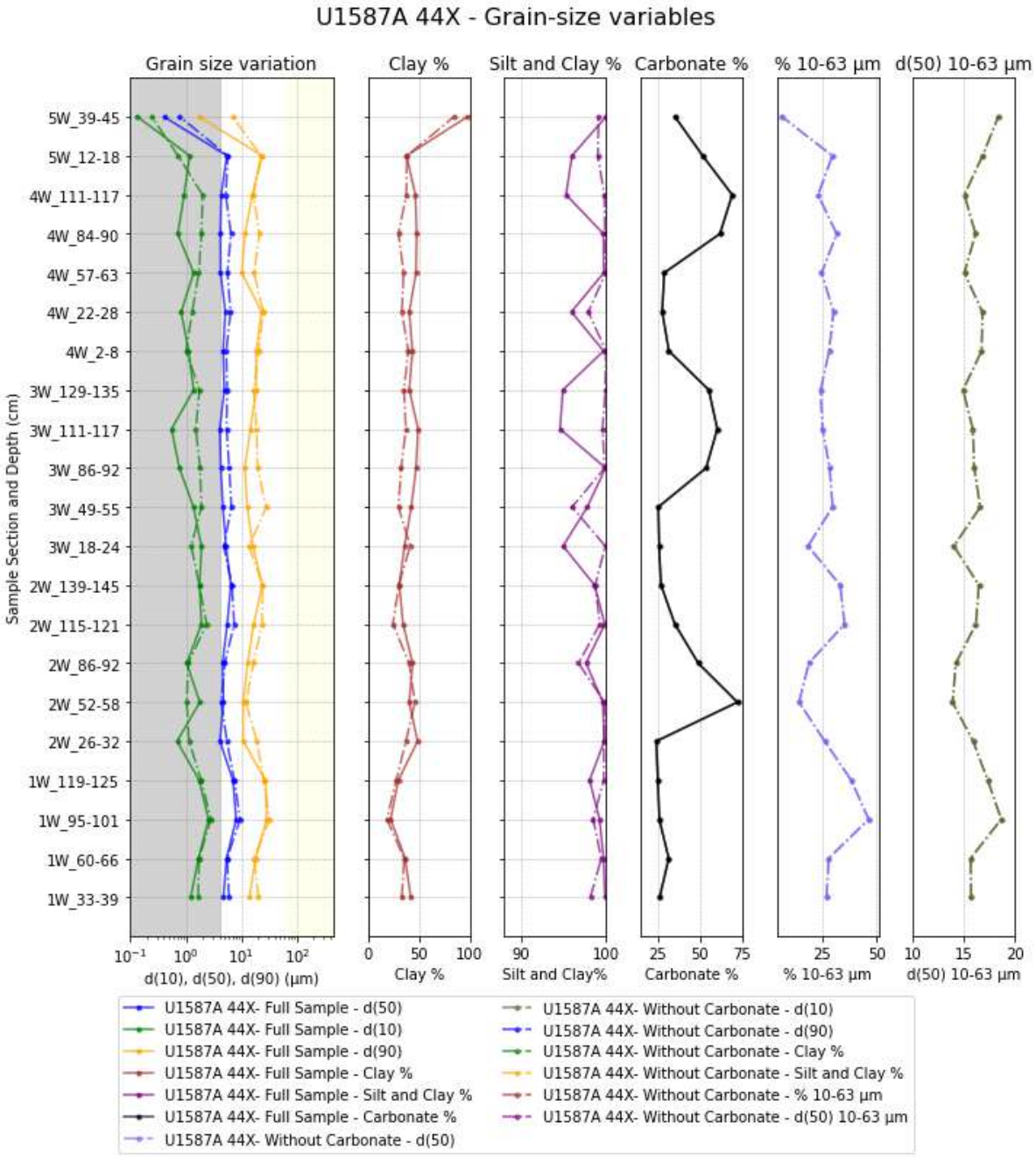


Figure 3- Grain size variables for Messinian interval of pilot project. Column 1- the 10th, 50th and 90th percentile for each sample. Column 2- the percentage of same under 4µm. Column 3- The percentage of the sample under 63µm. Column 4- Carbonate percentage, from combined bulk sample and fine fraction (David Hodell, person communication). Column 5- percentage of the sample within the 'sortable silt' window, sample without carbonate only. Column 6- 50th percentile of sample that is within the 'sortable silt' window.

The main carbonate grains constituting these samples are nannofossils and foraminifera. These are therefore on the whole finer (nannofossils) and coarser (foraminifera) than the siliciclastic portion of the samples, therefore through acidifying the samples, the majority of the coarsest and finest sediments is dissolved. This can be noted through the change between the solid lines in Figure 2 (full sample) and the dashed lines (sample without carbonate). The sortable-silt values vary between 14-18 µm (Figure 2, column 6), which indicates a variation in current speed of roughly 3-10 cm/s (McCave et al., 2017). These variations in current speed show reasonable correlation with the glacial-interglacial cycles (i.e. increase in carbonate values corresponding with decrease in d(50) of the 10-63 µm, see figure 2).

These preliminary results are promising and suggest a link between the background currents and glaciations. The wider study outlined in this proposal will expand this to longer time periods. Work is ongoing with collaborators to establish control on sortable silt variations (e.g. Mediterranean outflow waters, river discharge changes etc.)

The data from this project as well as the corresponding data from collaborators has been collated by Prof. Tim Herbert of Brown University, and a collaborative publication is in process of being submitted.