



**INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS**  
**UNION GEODESIQUE ET GEOPHYSIQUE INTERNATIONALE**

## **The IUGG Electronic Journal**

**Volume 21 No. 8 (1 August 2021)**

This monthly newsletter is intended to keep IUGG Members and individual scientists informed about the activities of the Union, its Associations and interdisciplinary bodies, and the actions of the IUGG Secretariat, Bureau, and Executive Committee. Past issues are posted on the IUGG [website](#). E-Journals may be forwarded to those who will benefit from the information. Your comments are welcome.

### **Contents**

1. IUGG at the Global Geoscience Societies Meeting
2. IUGG Association Journals
3. IAG Scientific Assembly 2021 – Report
4. IAHS New Officers
5. Open Science and the UNESCO initiative
6. UNESCO International Geoscience Programme – Call for Proposals
7. ITU/WMO/UNEP Focus Group on AI for Natural Disaster Management – Update
8. Copernicus Medal 2022 – Call for Applications
9. Obituary
10. Meeting Calendar

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### **1. IUGG at the Global Geoscience Societies Meeting**

On 30 June 2021, the American Geophysical Union (AGU) organised the Global Geosciences Societies Meeting. Representatives from 11 societies including the AGU, the African Geophysical Society (AGS), the German Geophysical Society (DGG), the European Geosciences Union (EGU), the Geological Society of America (GSA), the Indian Geophysical Union (IGU), the International Union of Geodesy and Geophysics (IUGG), the Japan Geoscience Union (JpGU), the Korea Geoscience Union (KGU), the Mexican Geophysical Union (UGM), and the American Geosciences Institute (AGI) attended the meeting. IUGG was represented by the President, Secretary General, and Executive Secretary.

Following up on the [Declaration of the Significance of Geoscience Expertise to Meet Global Societal Challenges](#), which was signed by many geoscience societies in May 2020, the representatives of the societies agreed on establishing task groups dealing with strengthening the societies common goals, including (i) support of early-career scientists and student communities, (ii) advocacy for Earth and space sciences in global and domestic policy-making, (iii) public engagement and outreach to increase Earth and space sciences awareness, and (iv) inclusion and representation in Earth and space sciences.

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## 2. IUGG Association Journals

The IUGG, through some of its Associations, regularly publishes a number of peer-reviewed journals covering various topics of Earth and space sciences. Here, we would like to introduce you to the major journals of our Associations.

### *International Association of Geodesy (IAG)*

The [Journal of Geodesy](#) is the official journal of the IAG concerned with the study of scientific problems of geodesy and related interdisciplinary sciences. It presents peer-reviewed papers on theoretical or modelling studies, and on results of experiments and interpretations. In addition to original research papers, the journal includes commissioned review papers on topical subjects, occasional short notes on topics with broad significance to the readership, and special issues arising from scientific symposia or workshops. The journal covers the whole range of geodetic science and reports on theoretical and applied studies in research areas such as positioning; reference frame; geodetic networks; modelling and quality control; space geodesy; remote sensing; gravity fields, and geodynamics. The Journal of Geodesy is published by Springer. Five year impact factor: 4.781 (2020).



- An international journal examining scientific problems of geodesy and related interdisciplinary sciences.
- Covers the entire range of geodetic science.
- Presents peer-reviewed papers on theoretical or modelling studies, and on the results of experiments and interpretations.
- Reports on theoretical and applied studies in research areas such as positioning; reference frame; geodetic networks and more.
- 97% of authors who answered a survey reported that they would definitely publish or probably publish in the journal again.

### *International Association of Hydrological Sciences (IAHS)*

The [Hydrological Sciences Journal](#) is the official Journal of the IAHS and provides a forum for original papers and for the exchange of information and views on significant developments in hydrology worldwide. The Hydrological Sciences Journal is published by Taylor & Francis. Five year impact factor: 3.502 (2020).

The scope of the journal includes:

- The hydrological cycle.
- Surface water, groundwater, snow and ice, in all their physical, chemical and biological processes, their interrelationships, and their relationships to geographical factors, atmospheric processes and climate, and Earth processes including erosion and sedimentation.
- Hydrological extremes and their impact.
- Measurement, mathematical representation and computational aspects of hydrological processes.



- Hydrological aspects of the use and management of water resources and their change under the influence of human activity.
- Water resources systems, including the planning, engineering, management and economic aspects of applied hydrology.

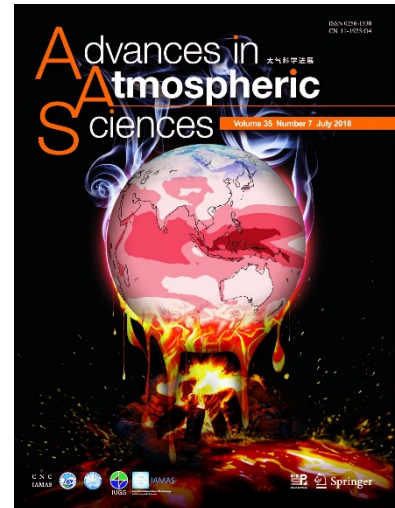
### ***International Association of Meteorology and Atmospheric Sciences (IAMAS)***

[Advances in Atmospheric Sciences](#), launched in 1984, offers rapid publication of original scientific papers on the dynamics, physics and chemistry of the atmosphere and ocean. It reports on the latest achievements and developments in the atmospheric sciences, including marine meteorology and meteorology-associated geophysics, as well as the theoretical and practical aspects of these disciplines.

The coverage includes weather systems, numerical weather prediction, climate dynamics and variability, satellite meteorology, remote sensing, air chemistry and the boundary layer, clouds and weather modification. Papers describing the application of new mathematics or new instruments are also collected here.

Advances in Atmospheric Sciences is sponsored by the Chinese Committee for IAMAS, the Institute of Atmospheric Physics at Chinese Academy of Sciences and Chinese Meteorological Society.

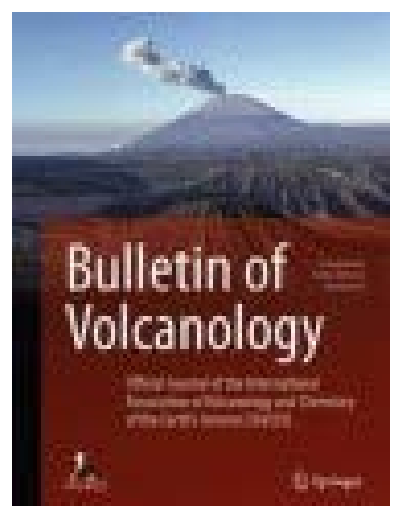
It is the associated journal of IAMAS and is published by Springer. Five year impact factor: 3.033 (2020).



- This journal presents original scientific papers on the dynamics, physics and chemistry of the atmosphere and ocean.
- Covers weather systems, numerical weather prediction, climate dynamics and variability, satellite meteorology, remote sensing, and more.
- Free app available on iTunes and Google Play Store.

### ***International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)***

The [Bulletin of Volcanology](#) was founded in 1922, as Bulletin Volcanologique, and is the official journal of the IAVCEI. The Bulletin of Volcanology publishes papers on volcanoes, their products, their eruptive behaviour, and their hazards. Papers aimed at understanding the deeper structure of volcanoes, and the evolution of magmatic systems using geochemical, petrological, and geophysical techniques are also published. Material is published in four sections: Review Articles; Research Articles; Short Scientific Communications; and a Forum that provides for discussion of controversial issues and for comment and reply on previously published Articles and Communications. The Bulletin of Volcanology is published by Springer. Five year impact factor: 2.806 (2020).



### 3. IAG Scientific Assembly 2021 – Report

The Scientific Assembly of the International Association of Geodesy (IAG) was held in Beijing, China and online from 28 June to 2 July 2021. Due to the COVID-19 pandemic, the Assembly was organised as a hybrid event for the first time. The main local organiser was the Chinese Society for Geodesy, Photogrammetry and Cartography (CSGPC) with more than 20 co-organisers in China.

An unknown factor in the planning was the effect of the COVID-19 pandemic on the number of participants and the number of abstracts. As a surprise, the number of registered participants was 1,269 which is an all-time record in the history of IAG meetings - more than twice that of the previous record. 435 (34%) of the participants were students and early-career scientists. This is a very good number, and we have to continue efforts also in the future meetings to attract young people to participate.

A total of 615 abstracts were submitted which was also more than twice the expected number. The length of the oral talks was limited to five minutes. In each session, about half of the time was reserved for questions and discussions, which was meant to mitigate the lack of personal contacts. There were three parallel oral sessions and one poster session running each day, allowing about 150 daily presentations of which about 42% were orals.



*IAG President Zuheir Altamimi giving his speech at the Opening Ceremony of the IAG Scientific Assembly 2021*

The theme of the Assembly was "Geodesy for a Sustainable Earth" with a total of seven symposia.

The topics were the following:

1. Reference Frames,
- 2a. Earth's Static Gravity Field,
- 2b. Earth's Time-variable Gravity Field,
3. Earth Rotation and Geodynamics,
4. Positioning and Applications,
5. Global Geodetic Observing System (GGOS), and
6. The ICC symposium with three Inter-Commission Committees and the IAG Project.

During the five days, a total of 36 sessions were organised under the themes. The most popular sessions were related to emerging observing techniques, climate change related topics and geodetic observations of geohazards, in addition to the traditional geodetic topics on reference frames, gravity and deformations.

The technical arrangements went extremely well, thanks to the Local Organisers and skilful technical personnel in Beijing. Sincere thanks to all who made this assembly a great success. Also, many thanks to the symposium organisers, session conveners and chairpersons for the smooth guiding of the program in spite of these exceptional conditions and very busy schedule. We are looking forward to the IAG and IUGG General Assembly 2023 in Berlin, hopefully back to the regular format.

Markku Poutanen, IAG Secretary General

#### 4. IAHS New Officers



The election of Officers of IAHS and its 10 [Commissions](#) occurs every four years during the IUGG General Assembly. The most recent elections were held in Montréal in 2019. The offices are held for the period 2019-2023, except for the Presidents who were elected in 2019 and whose mandate is 2021-2025. In July 2021 the Presidents became Past-Presidents and the Presidents-Elect became Presidents.

Ordinarily the transition to new president will occur during the IAHS Scientific Assembly. However, due to the Coronavirus pandemic the 2021 [Scientific Assembly](#) has been delayed until 2022 and therefore the transition was confirmed during the recent online IAHS Bureau meeting.

With immediate effect the new officers are as follows:

<a href="#">IAHS</a>	President	Berit Arheimer	Sweden
	Past-President	Günter Blöschl	Austria
<a href="#">ICCE</a>	President	Paolo Porto	Italy
	Past-President	Adrian Collins	UK
<a href="#">ICCLAS</a>	President	Richard Petrone	Canada
	Past-President	Harald Kunstmann	Germany
<a href="#">ICGW</a>	President	Felipe de Barros	Brazil / USA
	Past-President	Aldo Fiori	Italy
<a href="#">ICRS</a>	President	Amir AghaKouchak	Iran / USA
	Past-President	Yangbo Chen	China
<a href="#">ICSH</a>	President	Elena Volpi	Italy
	Past-President	Ashish Sharma	Australia
<a href="#">ICSIH</a>	President	Melody Sandells	UK
	Past-President	Tobias Jonas	Switzerland
<a href="#">ICSW</a>	President	David Hannah	UK



	Past-President	Gil Mahé	France
<a href="#">ICT</a>	President	Zhonghe Pang	China
	Past-President	Christine Stumpp	Germany / Austria
<a href="#">ICWQ</a>	Co-President (2021-2023)	Elango Lakshmanan	India
	Co-President (2023-2025)	Xiaohong Chen	China
	Past-President	Wouter Buytaert	Belgium / UK
<a href="#">ICWRS</a>	President	Barry Croke	Australia
	Past-President	Andreas Schumann	Germany
<a href="#">Panta Rhei</a>	5th Biennium Chair	Heidi Kreibich	Germany
	4th Biennium Chair	Fuqiang Tian	China

We welcome the new Presidents to their posts and look forward to an exciting time at IAHS as we celebrate 100 years since the founding of the Association in Rome in 1922, and to the [IAHS 2022 Scientific Assembly](#) in Montpellier, France with a focus on the [Unsolved Problems in Hydrology](#) initiative and the end of the decade of [Panta Rhei](#).

Christophe Cudennec, IAHS Secretary General

## 5. Open Science and the UNESCO Initiative

A delegation of the International Science Council (ISC) with members from the Arab Council for the Social Sciences (ACSS), the Colombian Academy of Exact Physical and Natural Sciences, the International Council for Industrial and Applied Mathematics (ICIAM), the International Institute for Applied Systems Analysis (IIASA), the International Union of Geodesy and Geophysics (IUGG), the International Union of Pure and Applied Physics (IUPAP), the International Union of Psychological Sciences (IUPsyS), the National Research Council of Canada (NRC), the Social Sciences and Humanities Research Council (SSHRC), and World Data System (WDS) attended the UNESCO Special Committee meeting on Open Science, 6-12 May 2021, to open discussions on the final report of the UNESCO Secretariat, which would contain a draft of the Recommendation on Open Science.



The delegation published a joint statement on how the UNESCO Recommendation and potential interventions by UN Member States could develop. IUGG was represented by Christophe Cudennec and Nilay Dogulu (both IAHS).

The statement can be downloaded [here](#).

## 6. UNESCO International Geoscience Programme – Call for Proposals



# EARTH SCIENCE FOR SOCIETY

The Council of the International Geoscience Programme (IGCP) agreed, during the 6th Council session in March 2021, to launch a new call for project proposals to promote collaborative projects under the UNESCO umbrella with a special emphasis on the benefit to society, capacity-building, and the advancement and sharing of knowledge between scientists.

The call emphasises and prioritises proposals addressing the Vision Themes and annually defined topic of the IGCP detailed below. Also, proposals that include **Artificial Intelligence (AI), big data and cloud computing methodologies for application in the Geosciences** are welcome. Women, young and early career scientists from developing countries are especially encouraged to apply. Proposals will be ranked taking into account gender equality, geographic distribution of the leaders, project beneficiaries. The top multidisciplinary project will receive a Council Award and special funding.

Successful projects will be sponsored for up to five years jointly by UNESCO, the International Union of Geological Sciences (IUGS), the Jeju Province Development Corporation (JPDC) of the Republic of Korea and the UNESCO National Commission for the People's Republic of China.

For 2021, only one special topic has been agreed: “**Enhancing Societal Acceptance of the Sustainable Development of Earth's Geological Resources**”.

Deadline for project proposals: **15 September 2021**. Further info can be found [here](#).

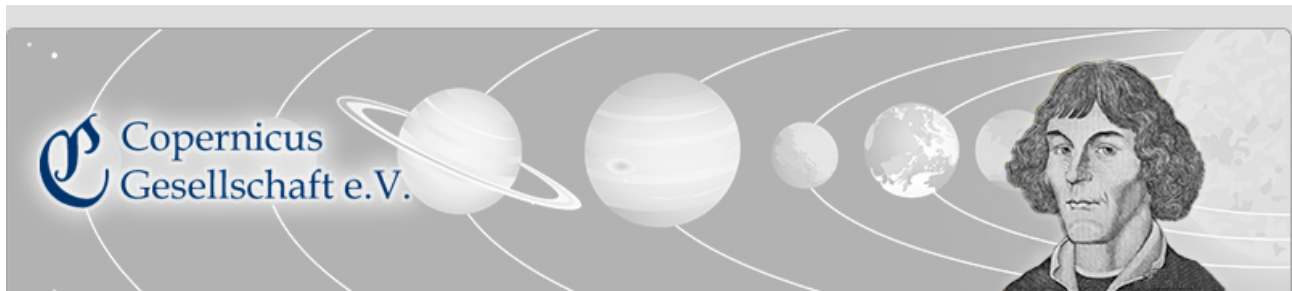
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## 7. ITU/WMO/UNEP Focus Group on AI for Natural Disaster Management – Update



Tired of sunny days at the beach? Longing for some turbulence? The next virtual workshop (30 August) and meeting (31 August to 2 September) of the [ITU/WMO/UNEP Focus Group on AI for Natural Disaster Management](#) (FG-AI4NDM) is just around the corner. During the workshop, technical presentations will explore the use of AI-based methods for the detection, forecasting, and communication of natural hazards such as fog, hail, floods, insect plagues, and earthquakes. At the subsequent meeting, the progress of use cases in the topic groups (with several topic groups being chaired by IUGG affiliated experts) and of technical reports in the working groups will be discussed. To see the full agenda, to register, and to propose a use case for inclusion in our analyses and technical reports, please visit the [FG-AI4NDM homepage](#). For any questions, please contact the [secretariat](#).

## 8. Copernicus Gesellschaft – Call for Applications



The Copernicus Gesellschaft e.V., partner of Copernicus Meetings & Publications, invites you and your colleagues to suggest appropriate candidates from the international community of the geo- and space sciences for the [Copernicus Medal 2022](#). This award has been presented since 2014.

The aim of the Copernicus Medal is threefold:

1. It recognises ingenious, innovative work in the geosciences or in the planetary and space sciences.
2. It recognises exceptional efforts in the promotion and international collaboration in these disciplines.
3. It is dedicated to colleagues in the midst of their scientific career (e.g. no later than 20 years after receiving the PhD degree). Parental leave periods in this phase are taken into consideration at two years per child under 12.

Any suggestions will be assessed by an international and interdisciplinary committee and the award will be presented at a special commemorative event in April 2022.

Please [submit](#) your proposal(s) by **15 November 2021**.

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## 9. Obituary

### *Edgar Kausel (1934-2021)*



*Edgar Kausel*  
(photo credit Eduardo Kausel)

On 13 January 2021, at the age of 86, Dr. Edgar Kausel, a renowned Chilean seismologist, passed away after a long illness. Dr. Kausel was born on 22 June 1934, in Santiago, Chile.

After witnessing the consequences of the 1960 May giant earthquake in southern Chile, he decided to specialise in seismology after obtaining his first degree in mining engineering at the University of Chile. He did so at Lamont-Doherty Geological Observatory (now Lamont–Doherty Earth Observatory) of Columbia University, one of the world's leading research centres developing fundamental knowledge about the origin, evolution, and future of the natural world.

His doctoral thesis on "Regionalization of the Lithosphere and Asthenosphere of the Pacific Ocean" allowed him to analyse the thickness of the lithosphere as a function of distance and age from the East Pacific rise through the study of surface waves. Upon returning to Chile, he was part of the initial group of full-time



professional scientists at the Faculty of Mathematical and Physical Sciences of the University of Chile. Dr. Kausel's additional contributions include studies of Chilean seismotectonics and earthquake hazard, induced seismicity in mines, and large Chilean earthquake rupture processes. As a professor, Dr. Kausel taught Geophysical Prospecting, Introduction to Earth Sciences, Physics of the Earth, General Seismology, and Theoretical Seismology and advised dozens of engineering and master students.

Professor Kausel served as Director of the Department of Geophysics of the Faculty of Mathematical and Physical Sciences of the University of Chile for several periods between 1965 and 1999, and Vice Dean of the same faculty between 1981 and 1983. Dr. Kausel was instrumental during the nineteen seventies and early eighties in maintaining geophysical activities in Chile due to the scientists' diaspora from the University of Chile.

Due to his achievements, he became a full member of the Chilean Academy of Sciences and the Third World Academy of Sciences. In 2004 he received the Gold Medal of the Chilean Institute of Engineers, and in 2006 he was awarded the National Prize for Applied and Technological Sciences. Among the different positions he held during his career, he was a member of the IASPEI Executive Committee from 1979 to 1987.

In addition to his talents as a scientist, Edgar Kausel excelled as a gifted athlete in high school; he held the national school record for three-stroke relay swimming, in which he contributed with freestyle. At less than 18 years of age, in 1952, he was part of the team that made the first sporting ascent of "Las Tortolas", a 6323m high Andes mountain. He stood out as an offensive right-wing amateur football player, particularly because of his fast pace.

Dr. Edgar Kausel is survived by his wife Inés, daughters Jacqueline, María Inés, son, Edgar Jr., and grandchildren Samuel, Margarita, Victoria, Agustina, and Sofia.

Sergio Eduardo Barrientos, Member of the IASPEI Executive Committee

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## 10. Meeting Calendar

### *August*

- 1-6, AOGS, Online, [AOGS 18th Annual Meeting](#)
- 2-6, IAMAS, Online, [International Conference on Clouds and Precipitation](#)
- 3-6, IAHS, Moscow, Russia and Online, [International Conference on the Status and Future of the World's Large Rivers](#)
- 14-22, IUCr, Prague, Czech Republic and Online, [25th Congress and General Assembly of the International Union of Crystallography](#)
- 15-20, IAMAS, Brisbane, Australia, [21st International Conference on Nucleation and Atmospheric Aerosols](#)
- 16-20, IAGA, Online, [5th IAGA School](#)
- 16-20, IASPEI, Online, [IASPEI School](#)
- 16-20, IGU, Online, [34th International Geographical Congress](#)
- 16-21, IUGS, New Delhi, India, [36th International Geological Congress](#)
- 21-27, IAGA, IASPEI, Online, [IAGA-IASPEI Joint Scientific Assembly](#) and 13th General Assembly of the Asian Seismological Commission (ASC)
- 22-27, IUTAM, Online, [25th International Congress of Theoretical and Applied Mechanics](#)
- 28-4 September, URSI, Rome, Italy and Online, [23rd URSI General Assembly and Scientific Symposium](#)
- 29-3 September, IAHS, Online, [12th Annual Catchment Science Summer School](#)

## **September**

- 6-10, IAHS, UNESCO, Online, [Online Training Workshop on River Basin Sediment Monitoring and Management](#)
- 6-5 November, CODATA, ICTP, Online, [CODATA-RDA Research Data Science Summer School](#)
- 15-16, IUGG, Online, IUGG Executive Committee Meeting 2021
- 16-17, IAHS, Online, [STAHY 2021](#)
- 19-24, IASPEI, Online, [37th General Assembly of the European Seismological Commission](#)
- 19-24, BGR, Karlsruhe, Germany and Online, [GEOKARLSRUHE 2021. Sustainable Earth – from processes to resources](#)
- 20-22, AOGS, EGU, Online, [NATHAZARDS2021 – The Third AOGS-EGU Joint Conference on New Dimensions for Natural Hazards in Asia](#)
- 27-1 October, IASPEI, Cargèse (Corsica), France, [3rd International School on Earthquakes: Nucleation, Triggering, and Relationship With Aseismic Processes](#)

## **October**

- 3-9, IAMAS, Online, [Quadrennial Ozone Symposium 2021](#)
- 5-6, IAHS, Potsdam, Germany and Online, [Second International Conference on Natural Hazards and Risks in a Changing World](#)
- 5-8, IAG, Munich, Germany and Online, [Unified Analysis Workshop 2021](#)
- 11-13, IAG, Online, [GGOS Days 2021](#)
- 11-15, ISC, Online, [2nd General Assembly of the International Science Council](#)
- 18-29, IUGG, ICTP, CMG, IAGA, IASPEI, IAVCEI, Trieste, Italy and Online, [Joint ICTP-IUGG Workshop on Data Assimilation and Inverse Problems in Geophysical Sciences](#)
- 20-22, IAHS, Victoria Falls, Zimbabwe and Online, [22nd WaterNet/WARFSA/GWP-SA Symposium on Integrated Water Resources Management for Sustainable Development in Eastern and Southern Africa](#)
- 20-22, IUPAP, Online, [30th General Assembly of the International Union of Pure and Applied Physics](#)
- 26-31, ILP, GFZ, AGU, Online, [International Symposium on Deep Earth Exploration and Practices \(DEEP-2021\)](#)

## **Association Scientific Assemblies 2021-2023**

- 21-27 August 2021, IAGA, IASPEI, Online, [IAGA-IASPEI Joint Scientific Assembly](#)
- 29 May-3 June 2022, IAHS, Montpellier, France, [IAHS Scientific Assembly](#)
- 30 January-3 February 2023, IAVCEI, Rotorua, New Zealand, [IAVCEI Scientific Assembly](#)

## **IUGG General Assembly 2023**

- 11-20 July 2023, IUGG, Berlin, Germany, [IUGG General Assembly 2023](#)

The full IUGG Events Calendar 2021 can be found [here](#).

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