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Cover image

The Louvre Pyramid in Paris is one of the world's most iconic glass structures.

Photo: Fanie van Rooyen

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EDITOR'S NOTE

International Year of Glass 2022

Glass is literally all around us.

Just have a look at the screen you are likely reading this on, at the watch that might be on your arm, at the windows all around you or the glass of water you might have on your table. Glass gave us the art of the Louvre, clean, solar energy panels and the optics of the James Webb Space Telescope. It is truly a wondrous material.

On 18th May 2021 the UN General Council approved a joint application by the International Commission on Glass (ICG), the Community of Glass Associations (CGA) and ICOM-Glass that 2022 be declared a United Nations International Year of Glass (IYOG). The year has seen many participating events and institutions celebrating the essential role that glass has in society. In this edition, we carry on with that celebration.

According to the official IYOG website (iyog2022.org) glass, with its unparalleled versatility and technical capabilities, has in its many guises fostered innumerable cultural and scientific advancements, including:

- Glass is the main conduit for information in our knowledge-based society. Glass optical fibres have led to a global communications revolution; they are the backbone of the internet.
- Glassmakers have given us touch-sensitive covers for our mobile phones, revolutionizing the way we communicate.
- Glass is the chemically resistant container material for many of today's life-saving medicines.
- Bioglass compositions have advanced healthcare with their ability to: integrate with human bone; stimulate the human body's natural defense to heal flesh wounds; aid tissue design and regeneration; and resolve hearing and dental issues.
- Glass sheets support solar cells and give clean energy; glass fibres reduce our carbon footprint by strengthening wind turbine blades, by insulating our homes and through carbon capture and sequestration (CCS).

- The evolution of glass optics and optoelectronics means that the James Webb Space Telescope can study the first moments after the big bang and expand understanding of the Universe.
- Glass melting is being de-carbonised and glassy products are being safely recycled.
- Glass artists across the globe have given humankind an awareness of this wonderful material including its remarkable methods of fabrication, inherent beauty, and ability to capture and display nature's full spectrum of colour.

Read on for articles that touch on many of these aspects in fascinating detail.

For an inspirational talk on the role of glass in modern life, watch the "Worldwide presentation of the United Nations International Year of Glass 2022" here: <https://www.youtube.com/watch?v=A6ZEaWVlz6k>.

And for teachers and learners, a multi-authored book, *Welcome to the Glass Age*, was designed for IYOG with the aim to whet the interest of an intelligent 18 year old, printed for the IYOG opening ceremony in Geneva. The 13 chapters were written by experts and explain how glassy artefacts are helping the UN achieve its 2030 humanitarian goals. Download a free copy here: <https://saco.csic.es/index.php/s/kNgckQJ9ZMLQicR>

And of course, the issue has lots more – from the link between our microbiomes and mental health, to water weeds research and smart nanofibres. I hope you enjoy the read.



Fanie (RS) van Rooyen (Editor)

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