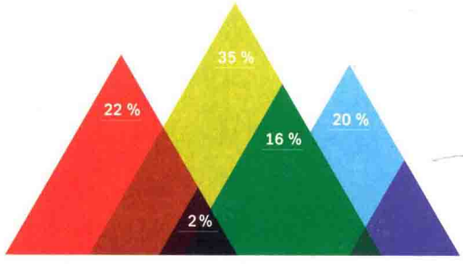
AROUND THE WORLD

THE ATLAS FOR TODAY

DO YOU EVER WONDER ...

... WHY BERLINERS LOVE CANDY BOMBERS?



... HOW DEVELOPMENT AID WORKS (OR DOESN'T)?

... HOW THE FIRST MEN CLIMBED TO THE TOP OF THE WORLD?

... WHAT THE WORLD IS HAVING FOR BREAKFAST?

... WHAT LITTLE RED RIDING HOOD DID TO THE WOLF ?

... THAT YOUR PRINTER INK IS ALMOST AS EXPENSIVE AS CHANEL № 5?

gestalten

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THE ATLAS FOR TODAY

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This book was conceived, edited, and designed by Gestalten.

Edited by Andrew Losowsky, Sven Ehmann, and Robert Klanten

Preface, epilog, and chapter introductions by Andrew Losowsky
Texts by Ben Knight

Layout and cover by Matthias Hübner and Jonas Herfurth
Layout assistance by Lisa Charlotte Rost

Chapter illustrations by Dermot Flynn
Typefaces: Relevant by Mika Mischler and Nik Thoenen, foundry: www.gestaltenfonts.com;
Fayon by Peter Mohr
Proofreading by Rachel Sampson

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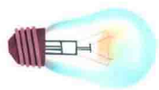

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GW	Gigawatt	
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Mio.	Millions
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Tril.	Trillions

CURRENCY

$	U.S. dollar
€	Euro
£	Pound

ECONOMY

GDP	Gross domestic product
VAT	Value added tax
LDC	Least developed countries
PPP	Purchasing power parity

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AROUND THE WORLD

The world around us is a visual feast and we as humans are visual creatures. Long before we can speak or read, before we understand the concepts of words and numbers, our brains are already processing, storing, and contextualizing incredible visual input from the world around us.

When we were around five months old, we developed a sense of depth perception and a receptiveness to different colors. We learned how to start processing shapes, and to try to understand how they intersected with our needs. We learned the smile of another human being, the skin pattern of our favorite animal, and the color of a toy, a car, or an apple.

The older we became, the more we found ourselves surrounded by information. Today, we swim in floods of data and ideas, numbers and phrases that appear before our eyes and on our devices, on billboards and from the mouths of our friends, telling us what is happening to whom, who did what and where, why we should purchase this and not that, and how this thing changes everything and that thing changes nothing.

This is the age of information, and the avalanche of data shows no signs of slowing.

Fortunately, technology in the form of powerful computer software has also provided storytellers and visual interpreters with tools to help filter and contextualize massive amounts of data. Magazines, newspapers, books, and websites use sophisticated tools to go beyond the barest "this is what happened" and explain, graphically, how something happened and what went on, utilizing colors and sizes, and abstractions and representations to show individual elements in relation to each other and to ourselves. Individually, they help us understand a single issue. Together, they explain a slice of the world.

This book is filled with some of the most remarkable of these graphics, the most amazing and helpful that we've collected from media around the world (and where they weren't originally in English, we've translated the texts). Together, they create a snapshot of who we are right now, what we are doing with our work and leisure time, how we view ourselves and each other, and where things might be heading. The world is an amazing place, filled with complexity and contradiction. We never stop creating and learning.

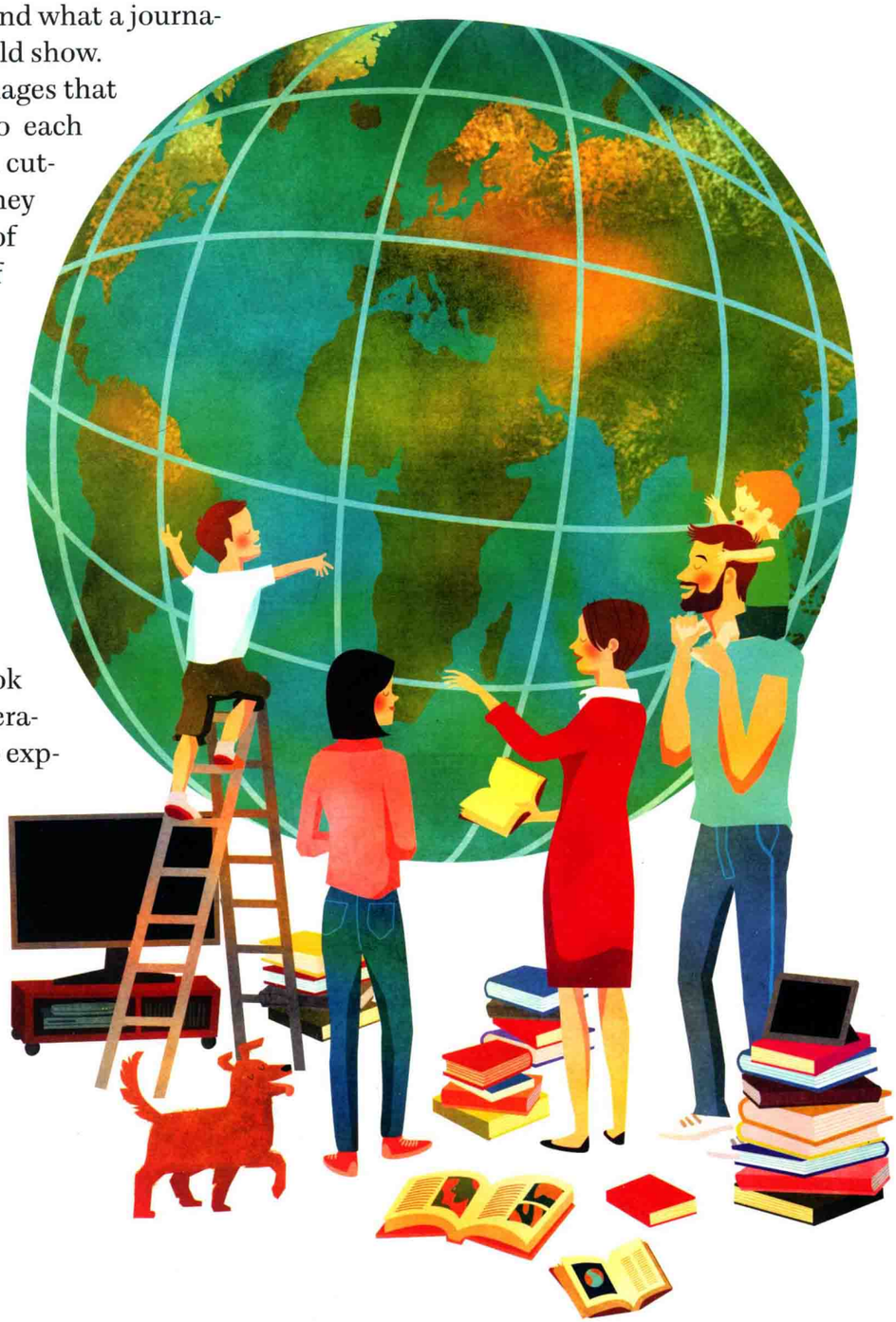
Like any snapshot, it captures only what is within the frame of the camera. A book can contain worlds within its pages, but there will always be much activity that isn't included. Sometimes, it's because these stories aren't being told using visual graphics of this nature. Currently, the creation of such graphics is primarily taking place in those societies that have widespread access to the latest information technology, and have media that will reproduce and distribute them. These creations can be labor intensive — not all newspapers or magazines can afford to support the staff and time it takes

to create them. And infographics — as they are often called today among the media — also tend to be created to explain what is in the news at the moment, aiming for ideas and trends that are circulating, as well as anniversaries and events considered worthy of commemoration.

That said, this book is still a pretty good representation of what the more fortunate sections of the world's population are currently thinking, watching, doing, and creating as we explore and expand our curiosity. The beauty of the tools used to create these graphics is that they are context neutral — they can be employed to describe sports or history, politics or religion — and they go far beyond what a journalist could explain, or a photograph could show.

These are the impossible images that place the world's skyscrapers next to each other, and supply a three-dimensional cutaway of what lies underneath Paris. They are a photo that could never be taken of the solar system and a visualization of the journeys of viruses far too small to be seen as they wreak havoc across the globe. Within each image are words of context and explanation, demonstrating the precision and care of each, created by those who occupy the new role of "visual journalist." A picture might be worth a thousand words, but these are graphics that might also contain them.

As a compilation, this book could be a time capsule for future generations, or the text sent out into space to explain Planet Earth to alien life. This is the world that we live in, beautiful and complicated, drawn out and explained. Take a good look.



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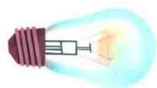

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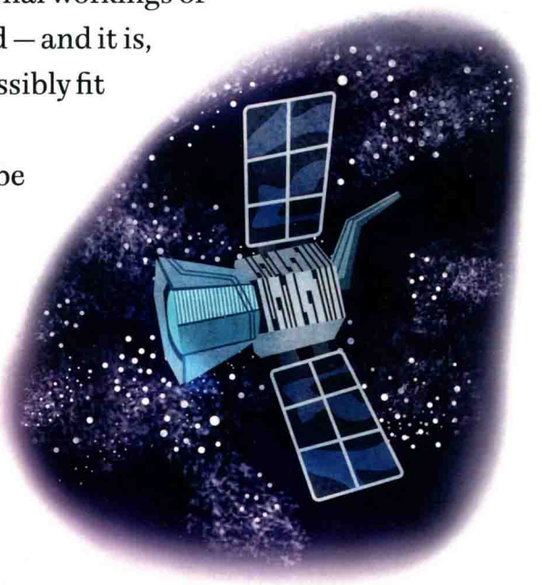
THE PLACE WE CALL HOME

When you feel upset about a soccer team losing, or a boyfriend ending a relationship, or just another parking ticket, remember this: you are a tiny speck on the cooled crust of a giant burning fireball that is constantly spinning as it flies around a vast inferno that has been burning for 23,000 times longer than the entire existence of humanity, is 28,080,000°F, and is the size of 1.3 million Planet Earths. Luckily, the development of the crust of our burning fireball created conditions for just the right mixture of oxygen, hydrogen, and other gases to be formed, combining with the gravitational pull of the inferno we call the Sun to protect us from deadly radiation, and to keep the gases trapped in at just the right levels to create conditions for life.

We have selected a series of images that remind us of these facts, and more. For instance, thanks to many interactions between the swirling mineral fires underneath the surface that create an invisible force we call magnetism, the gravitational pull on the oceans of the giant rock that orbits us that we have named the Moon, and too many other factors to count — only some of which modern science kind of understands — we have weather and earthquakes, polar ice (less than we'd like, and shrinking) and deserts (more than we'd like, and growing), rivers and mountains, and forests and oceans, all sustaining interdependent ecosystems of incredibly resilient creatures both tiny and huge.

Meanwhile, also spinning around that giant fireball are seven other rocks of sufficient size to be counted as significant by our own arbitrary measures. We aren't yet close to having the technological capacity to send a human to any of them, let alone to leave the orbit of this one fireball among approximately 100–400 billion in the galaxy, but there are at least a few small robots, shot into space and communicating back to us, that are flying around the vacuum of what we call our solar system, teaching us things via signals akin to the text messages of mobile phones. There is no way for any of us to truly understand what any of this means. How can we conceive of a distance through which it takes eight and a half minutes for the Sun's light to traverse, when we feel that two hours is too far to drive for dinner? We may as well try to explain the internal workings of an iPhone to a newborn kitten. The human brain is pretty limited — and it is, when you look at the bigger picture and everything that could possibly fit in it, really very small indeed.

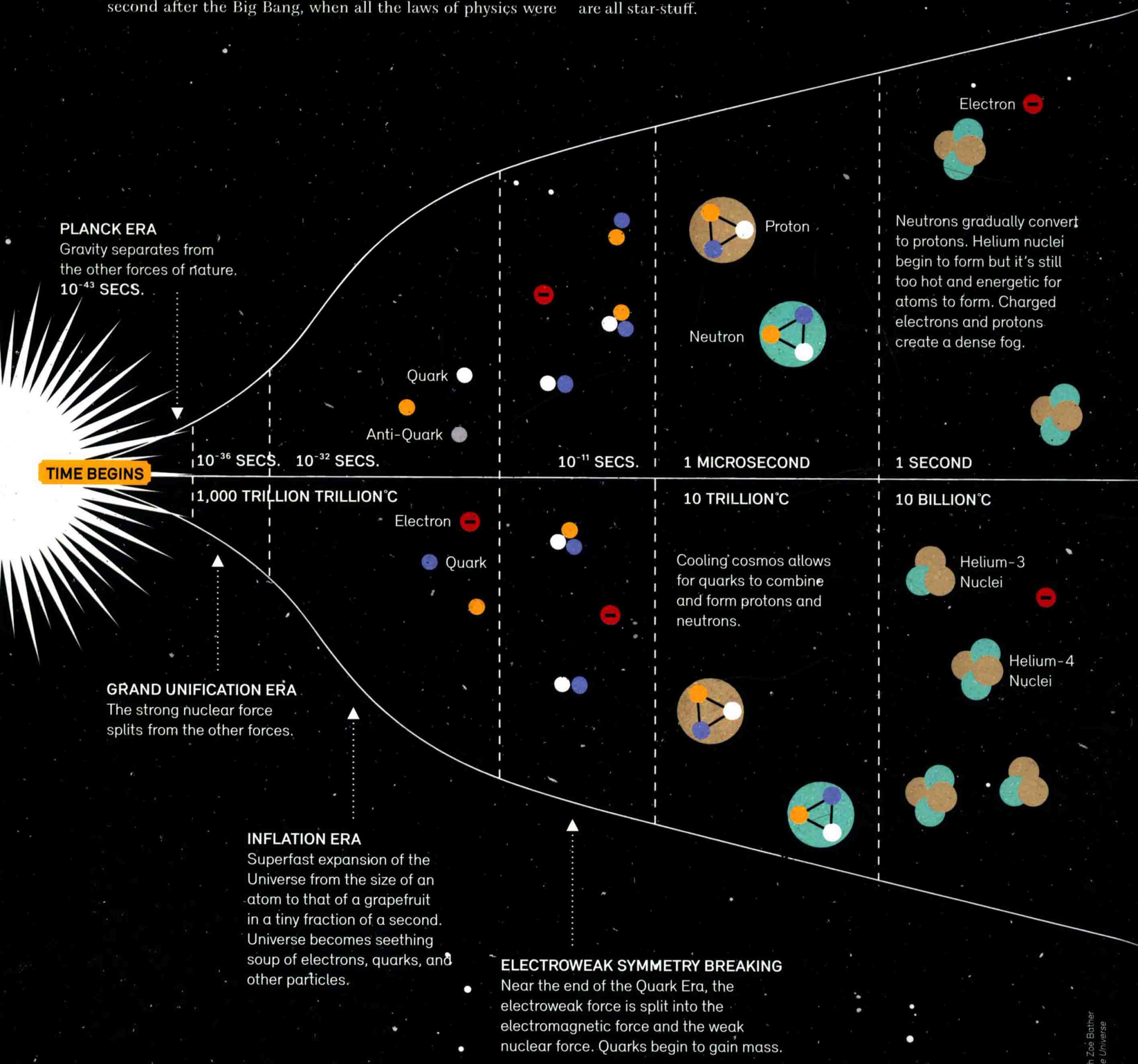
Journey with us to the stars and into the oceans, and be amazed by the complexity and beauty of everything that there is.



The Story So Far

Something mysterious and unimaginably powerful happened 13.7 billion years ago. Whatever it was, it caused the laws of physics (as we know them) to separate and become defined forever. And the rest is history.

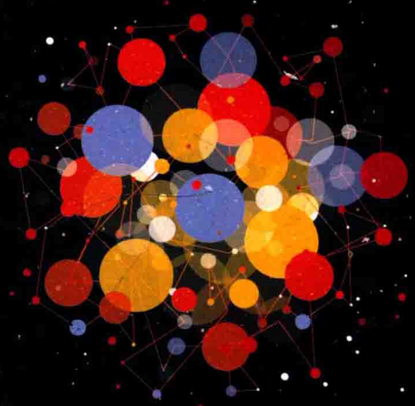
In the beginning there wasn't light. Whatever the Big Bang was, it was dark — it took 400,000 years for God to switch on the lights, or, if you prefer, for the necessary atoms to form so that light could start shining. Physicists can tell you all about what happened between now and a couple of billionths of a second after the Big Bang, when all the laws of physics were perfect and whole — the so-called singularity. After that, gravity broke off from the other laws of nature and did its own weird thing. And then it was up to all the quarks, protons, neutrons, electrons, atoms, and eventually molecules to sort themselves out, and collapse into stars. As the great Carl Sagan said, we are all star-stuff.

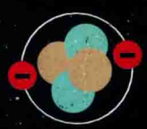


Design: Nathalie Lees with Zoë Bather
Published: *Wonders of The Universe*

TEMPERATURE COOLING

Gravity makes hydrogen and helium gas coalesce to form giant clouds that will later become galaxies. Smaller clumps of gas collapse to form the first stars.





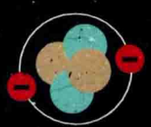
Hydrogen Atom

Helium Atom

400,000 YEARS

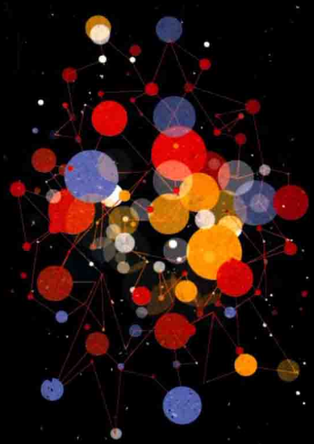
2,700˚C

Electrons combine with protons and neutrons to form atoms, mostly hydrogen and helium. Light can begin to shine.



1 BILLION YEARS

-200˚C

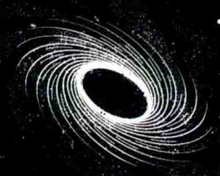


13.7 BILLION YEARS

PRESENT DAY

-270˚C

Galaxies cluster together under gravity. The first stars die and spew heavy elements into space. These will eventually form new stars and planets.



SPACE EXPANDING

Big Bang

Free Throw This!

Brain-melting distances reduced to basketball size.

Place a basketball directly beneath the basket on a court. Then stick an ordinary quilting pin in the court exactly beneath the opposing basket. You have now created a scale model showing almost the exact distance between the Sun and the Earth, if the former were a basketball, and the colorful

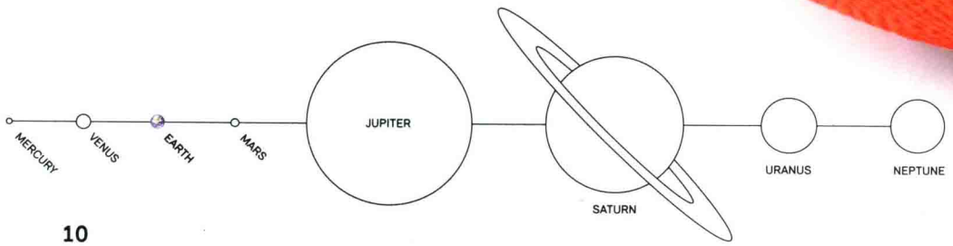
IF THE SUN WAS THE SIZE OF A BASKETBALL ...
(SHOWN ACTUAL SIZE HERE)

THE EARTH TO THE SAME SCALE

← Orbit: 25.6 meters away from the basketball

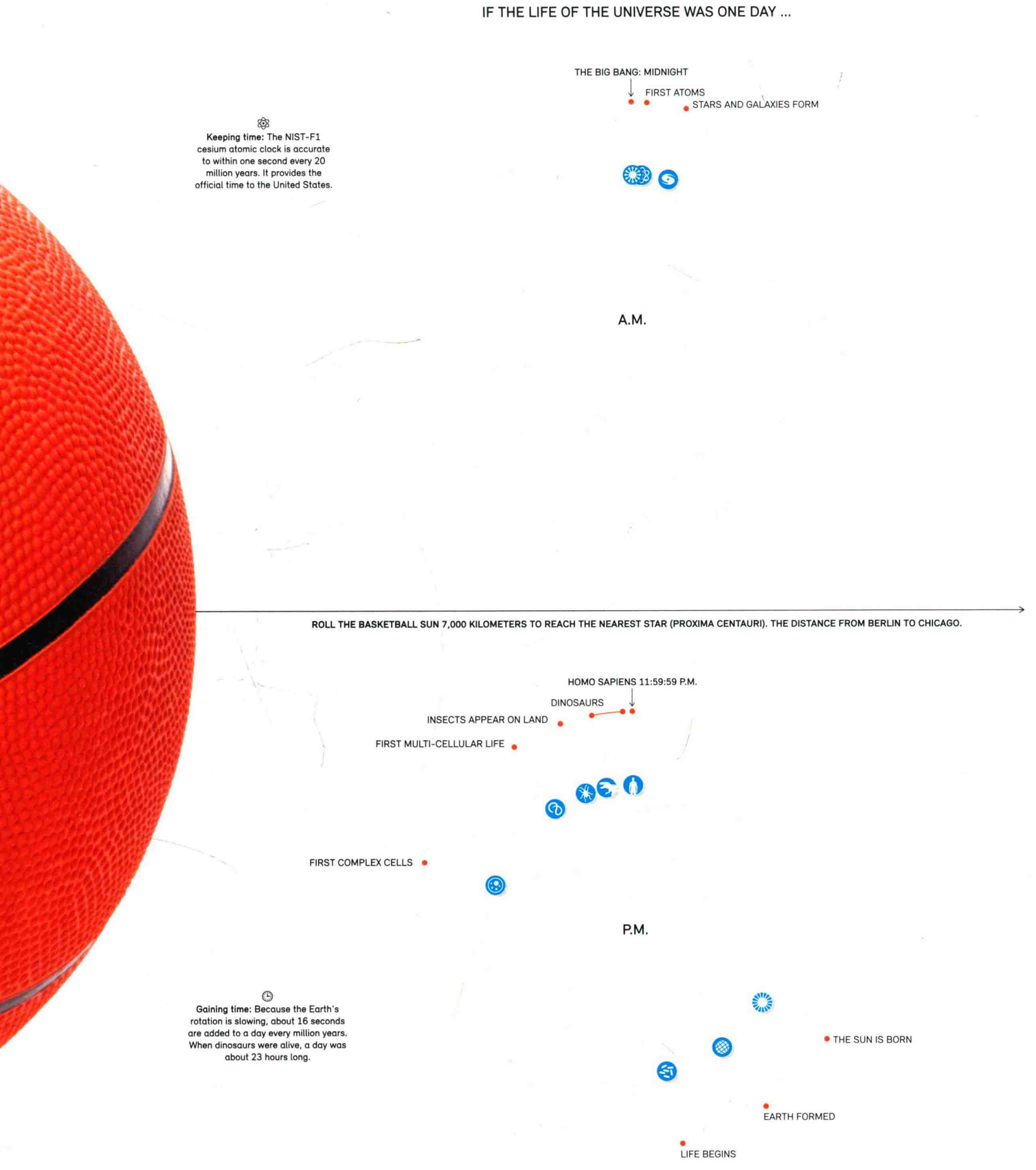
✈ **Long distance:** An Airbus A380 jet would take 205 days flying non-stop to circle the Sun, and another 5 million years to fly to the nearest star, Proxima Centauri.

RELATIVE SIZE OF THE OTHER PLANETS IN THE SOLAR SYSTEM



Design: Golden Section
Graphics with John Grimwade
Published: *In Graphics* Volume 5

plastic pinhead was our planet – the third from the Sun. Of course, with a basketball-sized sun you won't be able to fit the whole solar system onto one court. You couldn't even do that if you had a football field. Or five football fields. In fact, if you wanted to mark the Sun's outermost planet Pluto (whether its planetary status is confirmed or not), you'll have to get another pin and stick it in the ground over a kilometer away. Time-scales along these lines are even more mind-boggling.

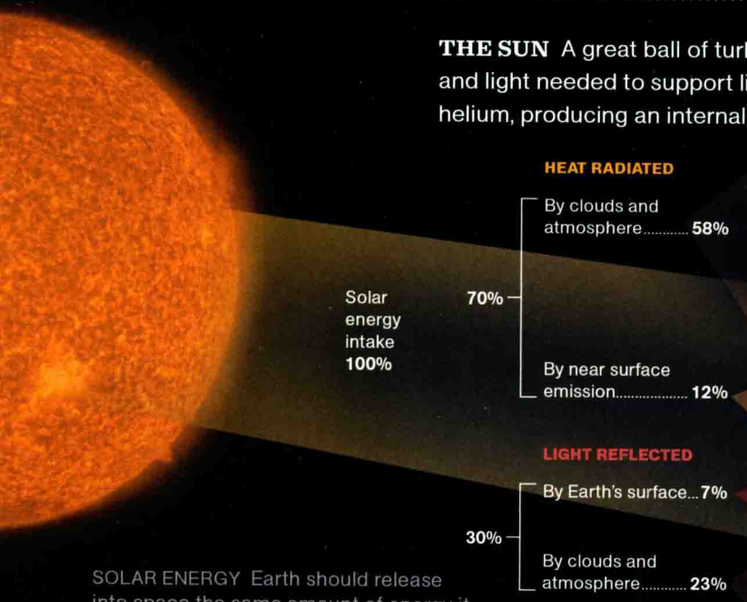


A Dynamic Earth

All living things exist in a zone delicately balanced between two immensely powerful engines—the molten core of the Earth itself and the blazing sun. Each generates a host of forces, setting off the earthquakes, volcanoes, and extremes of weather that shape our lands and seas.

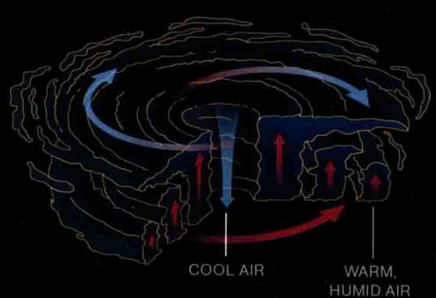
THE MOON On the side of the Earth facing the moon, gravity pulls the ocean outward, creating high tides. Inertia on the opposite side of the planet has the same effect.

THE SUN A great ball of turbulent gases, our star supplies the heat and light needed to support life. Hydrogen atoms combine to make helium, producing an internal temperature of about 28,080,000°F.



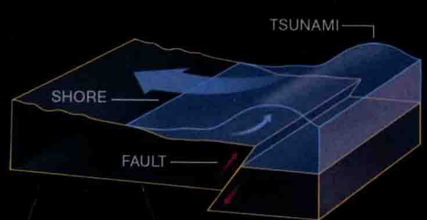
SOLAR ENERGY Earth should release into space the same amount of energy it absorbs from the sun. Greenhouse gases accumulating in the atmosphere upset that balance by blocking the energy release.

THE ATMOSPHERE A fragile layer of gas, the atmosphere protects our planet from the sun's radiation and other hazards. Stirred by the Earth's rotation and shifts in pressure and temperature, the atmosphere changes constantly, causing what we experience as weather.



HURRICANES Fueled by warm ocean water, hurricanes spin at more than 74 miles an hour. Heavy rains and an elevated sea surface add to the danger.

THE OCEAN Covering more than two-thirds of the planet, the ocean interacts with the atmosphere to make Earth habitable. Its currents distribute heat absorbed in the tropics to northern lands that would otherwise be icy year-round.



TSUNAMIS Large disturbances of the seafloor—especially earthquakes—create towering waves that can devastate the coastal communities they strike.

ATMOSPHERIC CELL

NORTH AMERICA

HURRICANE

OCEAN CURRENTS Evaporation, precipitation, cooling, heating, wind, upwelling, and other forces move water at the surface and stir deep circulation.

ATMOSPHERIC CELLS In constant loops, air warmed by the sun in the tropics flows to the poles as cold polar air travels to the tropics.

SOUTH AMERICA