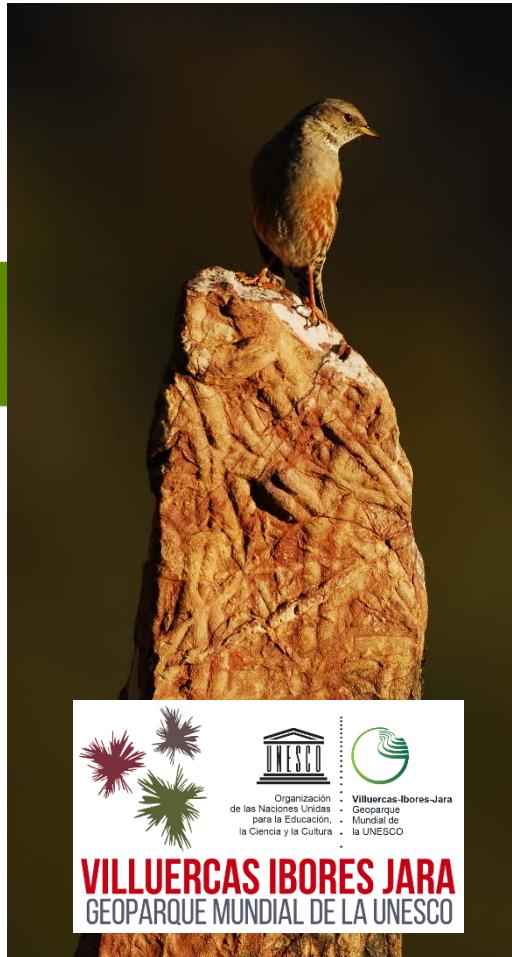
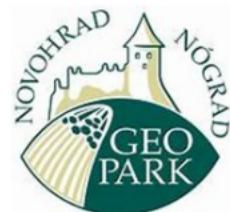




Co-funded by the
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Grupo de Desarrollo Rural Subbética



GEOLOGICAL HERITAGE

UNESCO GLOBAL GEOPARKS
AND THEIR ROLE IN EDUCATION

The case of Villuercas-Ibores-Jara
UNESCO Global Geopark, Spain



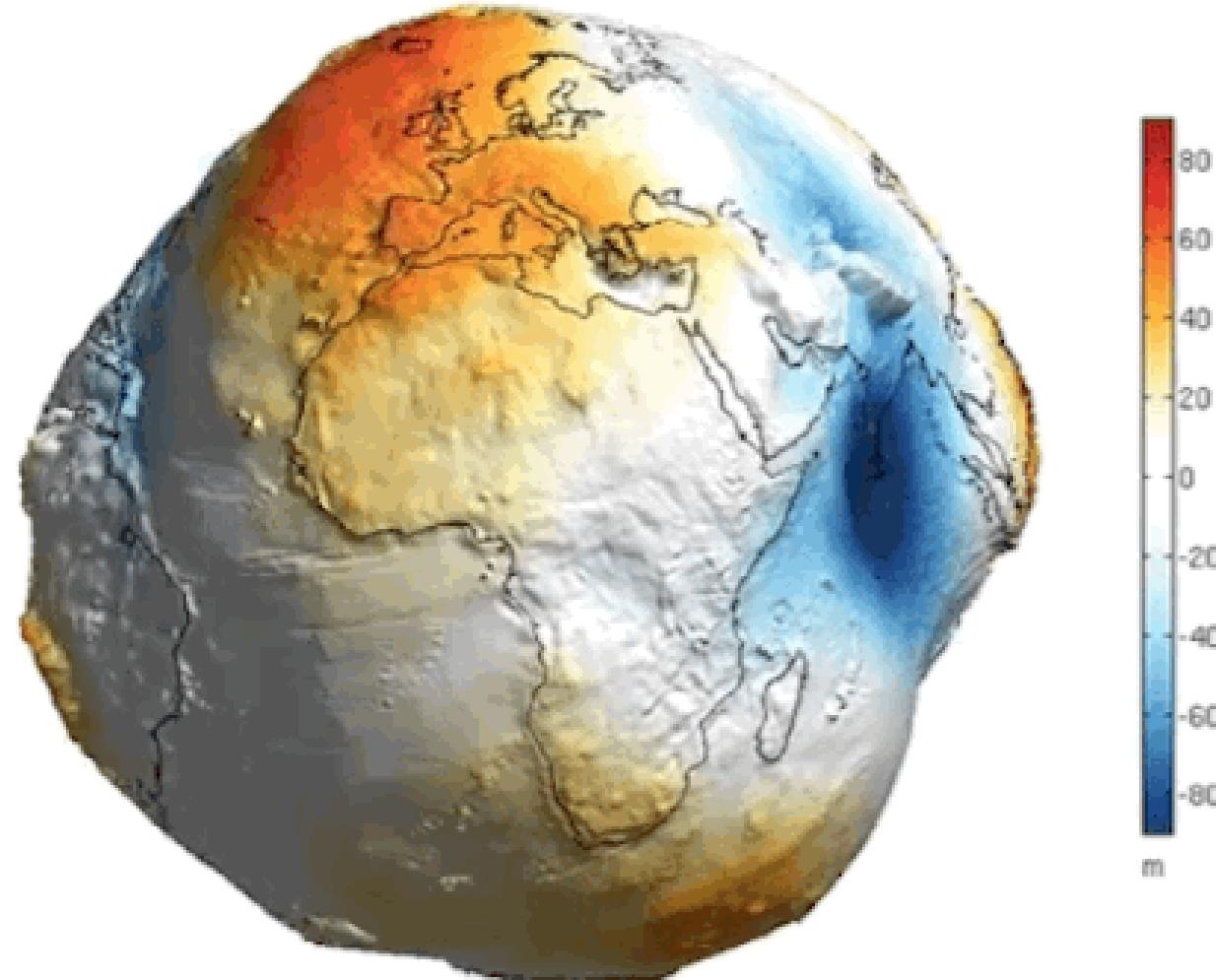
FOR.ES.
FORMAZIONE E SVILUPPO



The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Co-funded by the
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of the European Union



Previous knowledge of the person/people we are talking to [Background]



We incorporate new knowledge



The result can be:

[Bah!] or [Wow!]

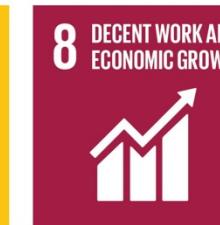




LET'S TRAVEL
TO THE PAST!!! ←



SUSTAINABLE DEVELOPMENT GOALS



**TO TAK-E CAR-E
OF TH-E FUTUR-E!!!**



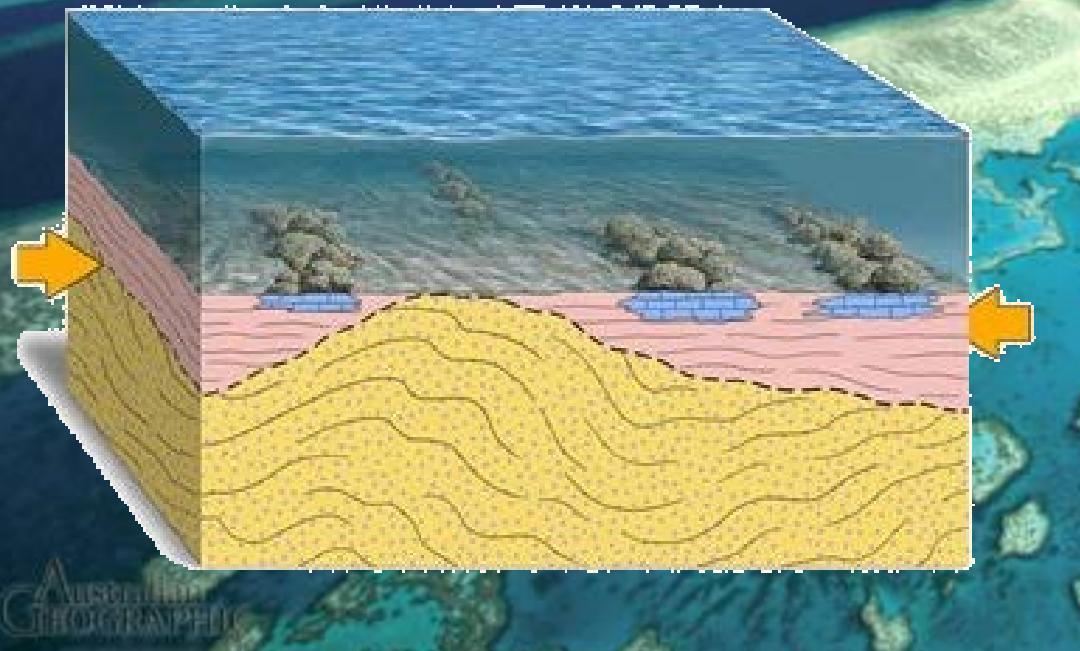
Cadomian orogeny (E-C; 550–530 Ma)

EDIACÁRICO - CÁMBRICO

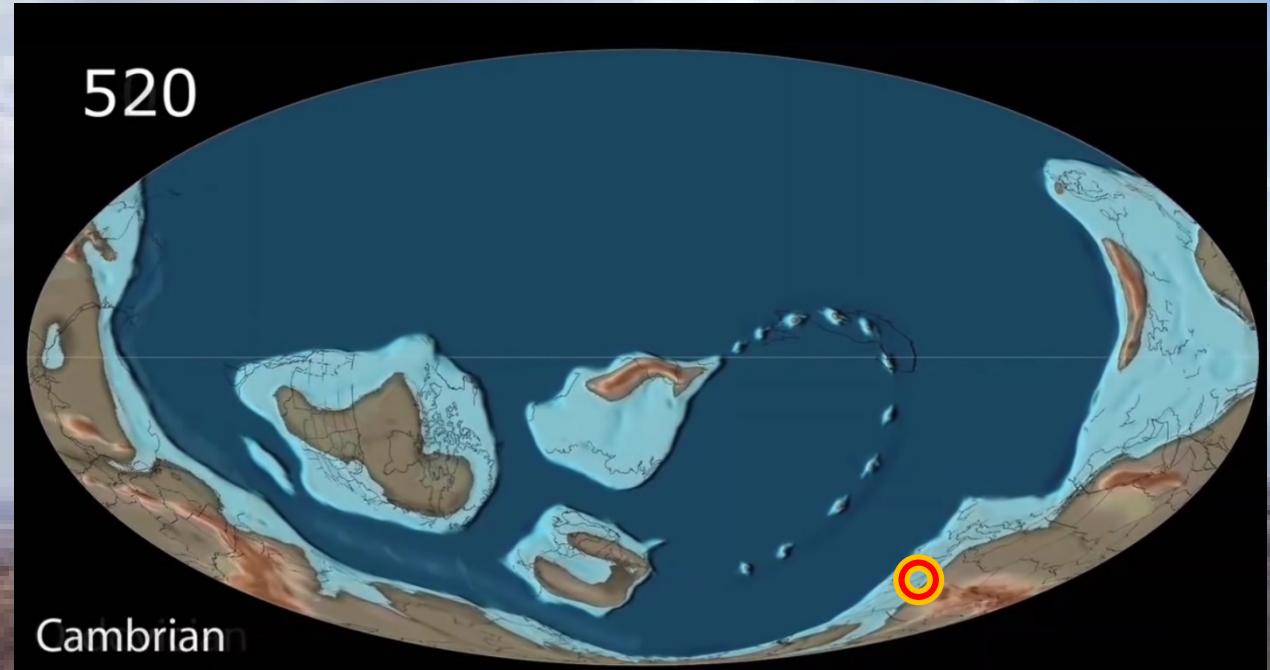
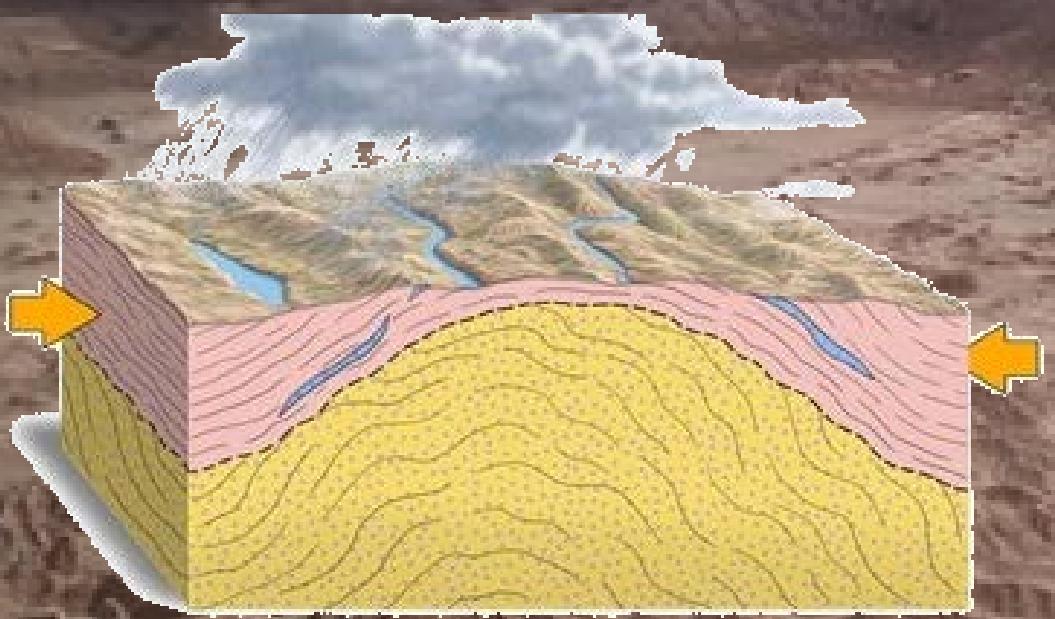
600-540 Ma



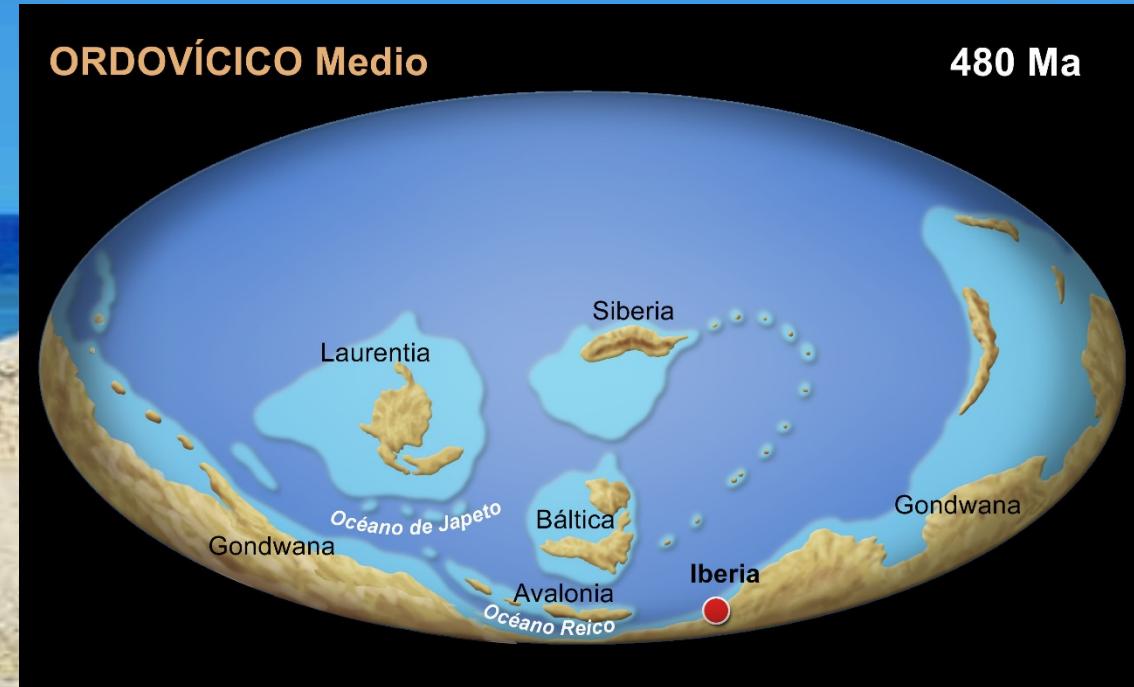
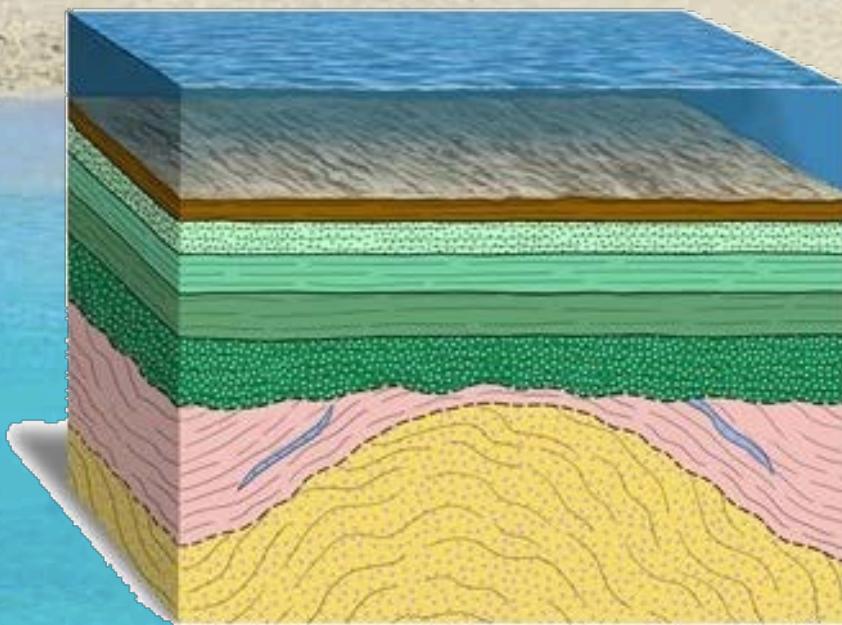
A. Grajera – Modified from Stanley



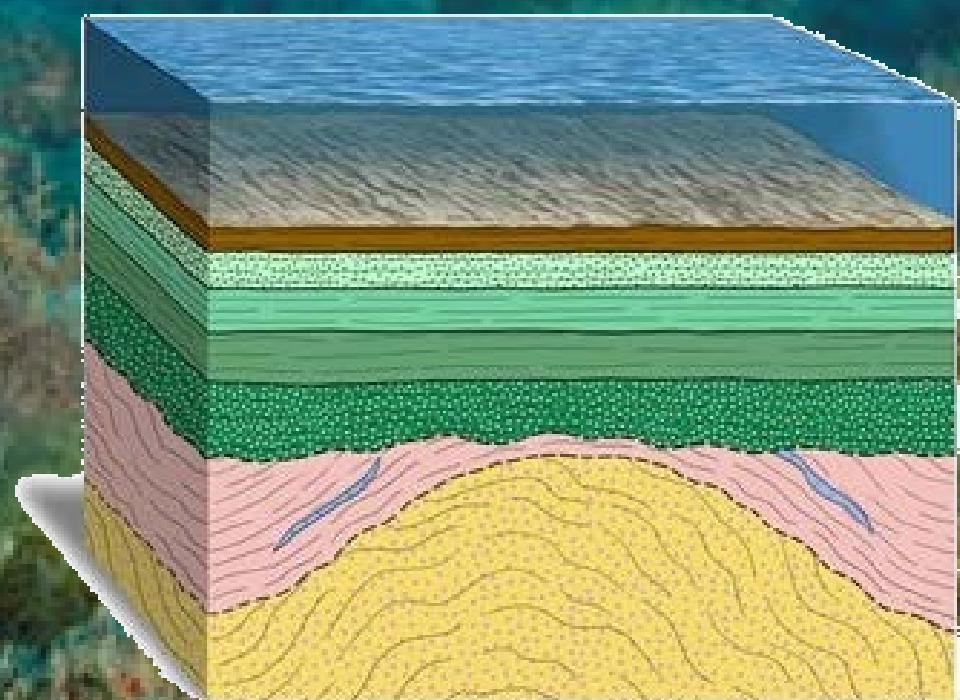
Cambrian (541–485 Ma)



Lower-Middle Ordovician (485–458 Ma)

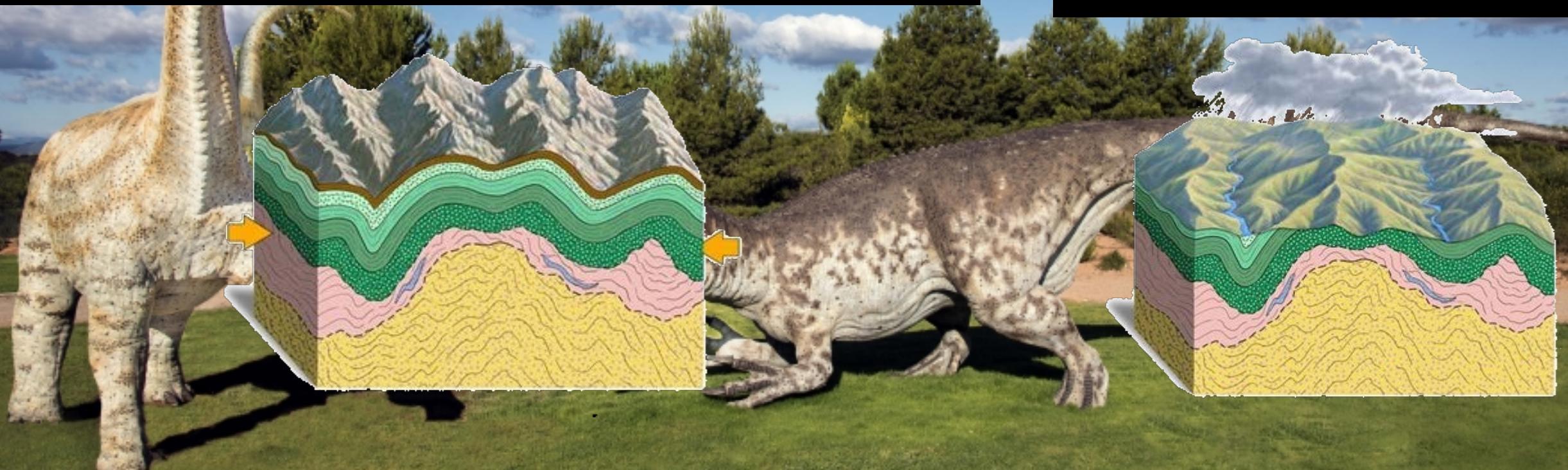
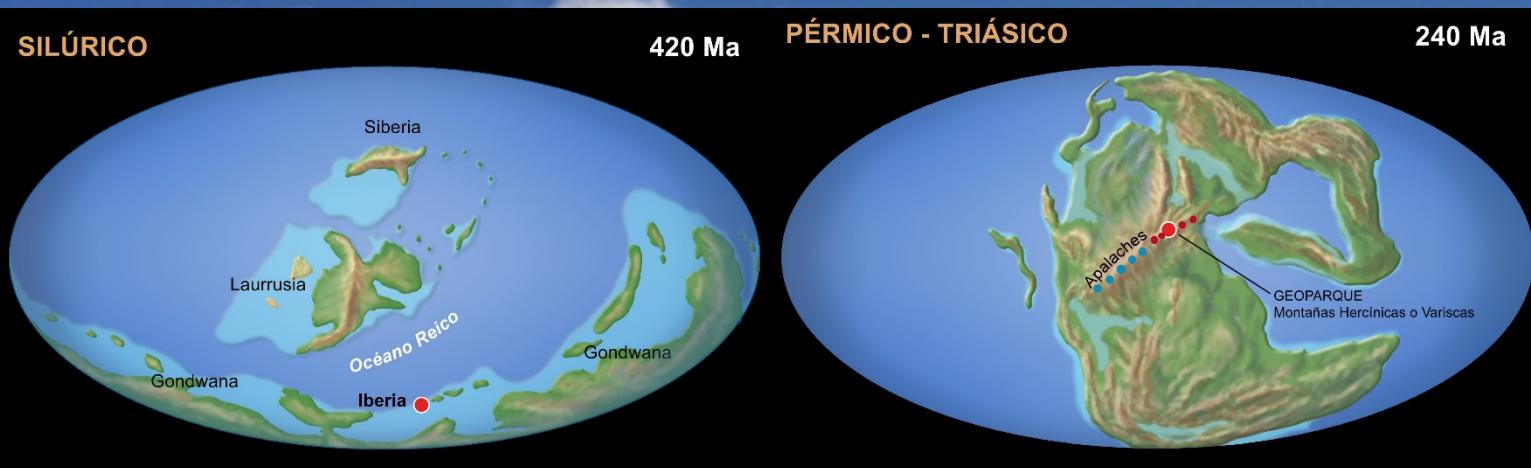


Upper Ordovician (458–443 Ma)



HERCYNIAN OROGENY (380–280 Ma) & rest of the Paleozoic

MESOZOIC
(251–66 Ma)



CENOZOIC / TODAY

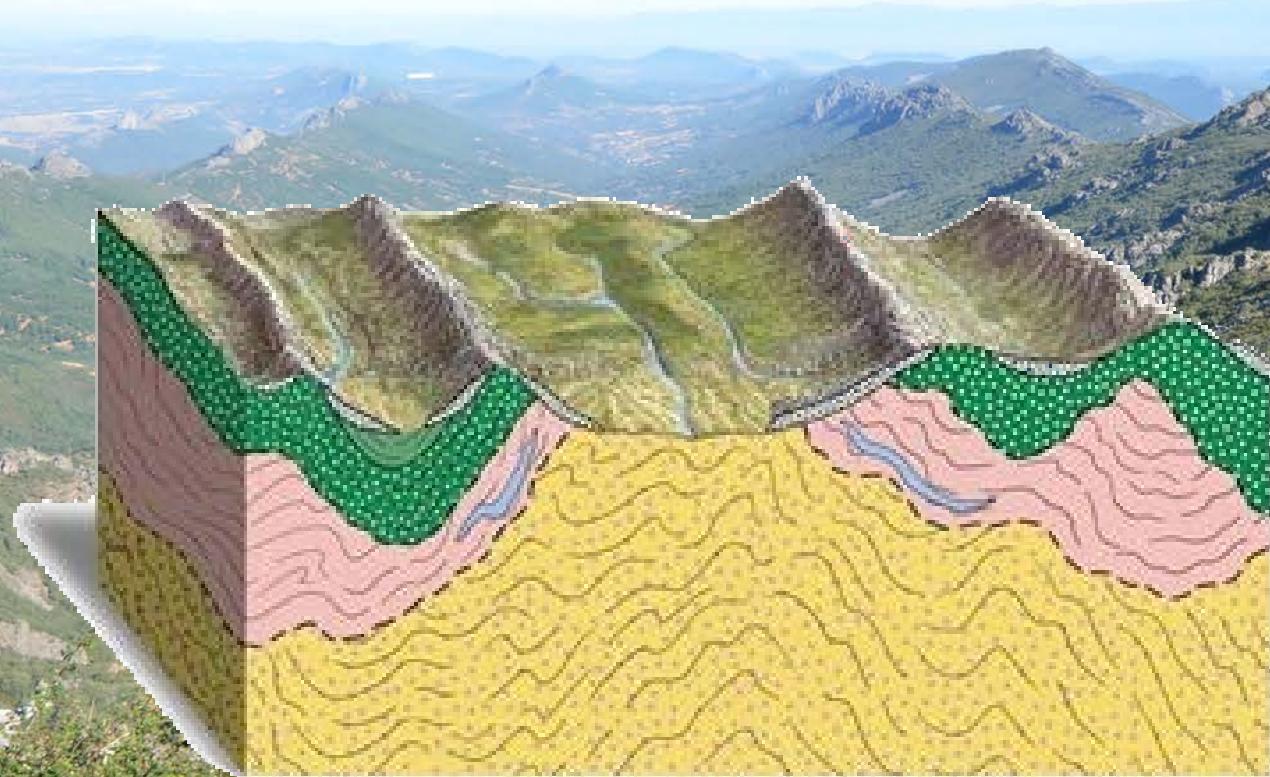
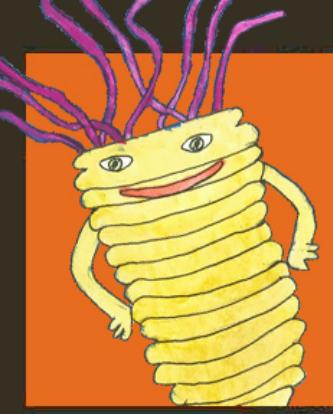


Plate Tectonics, Paleogeography, & Ice Ages (540 million years ago - Present-day)

by

Christopher R. Scotese

June 1, 2019



THE GOOD

(the first biomineralized metazoans)



THE NOT TOO UGLY

(the Ordovician radiation)



THE BAD

(the Ordovician–Silurian extinction events)



PALEOZOIC PARK

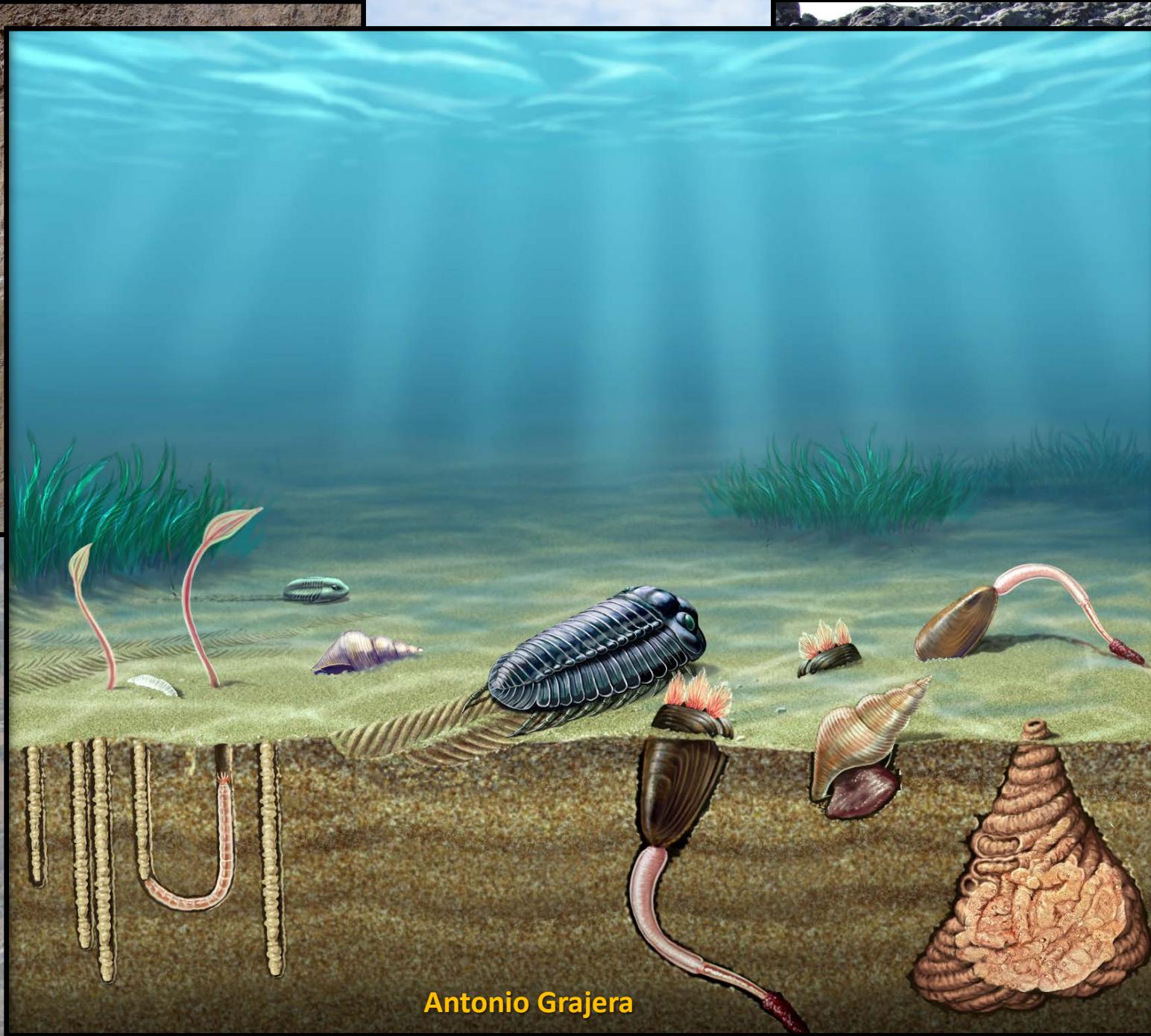
iii550–541 Ma!!!

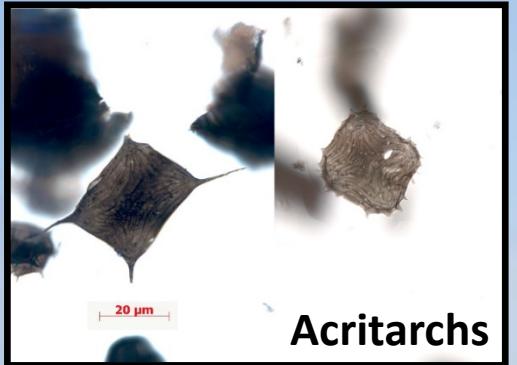


5 mm

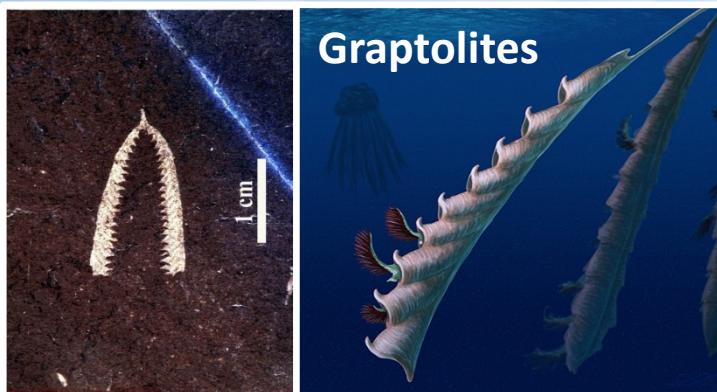


Antonio Grajera





Acritarchs



Graptolites



Briozoa

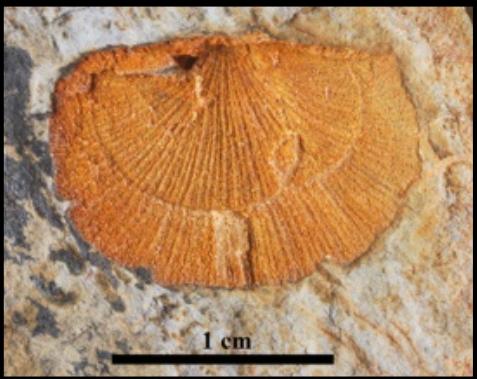


Echinoderm -ophiuroid

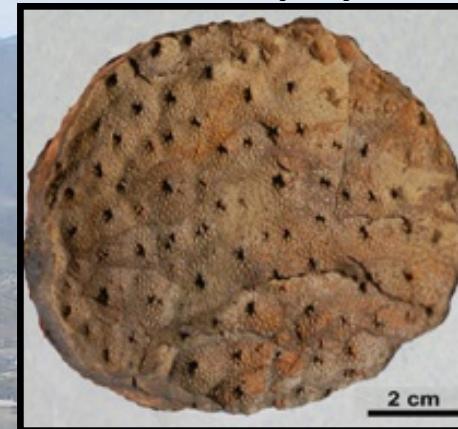


Trilobites

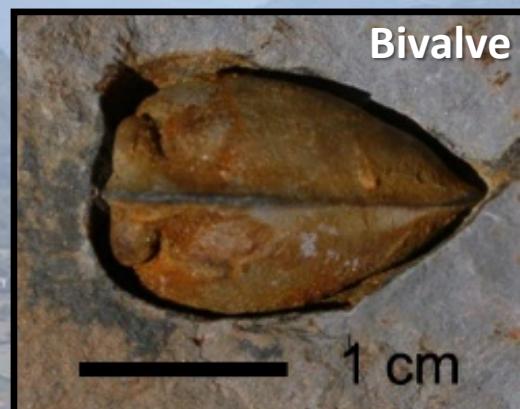
Brachiopod -articulate-



Echinoderm -diploporeta



Bivalve



Tomaculum



Brachiopod -inarticulate-

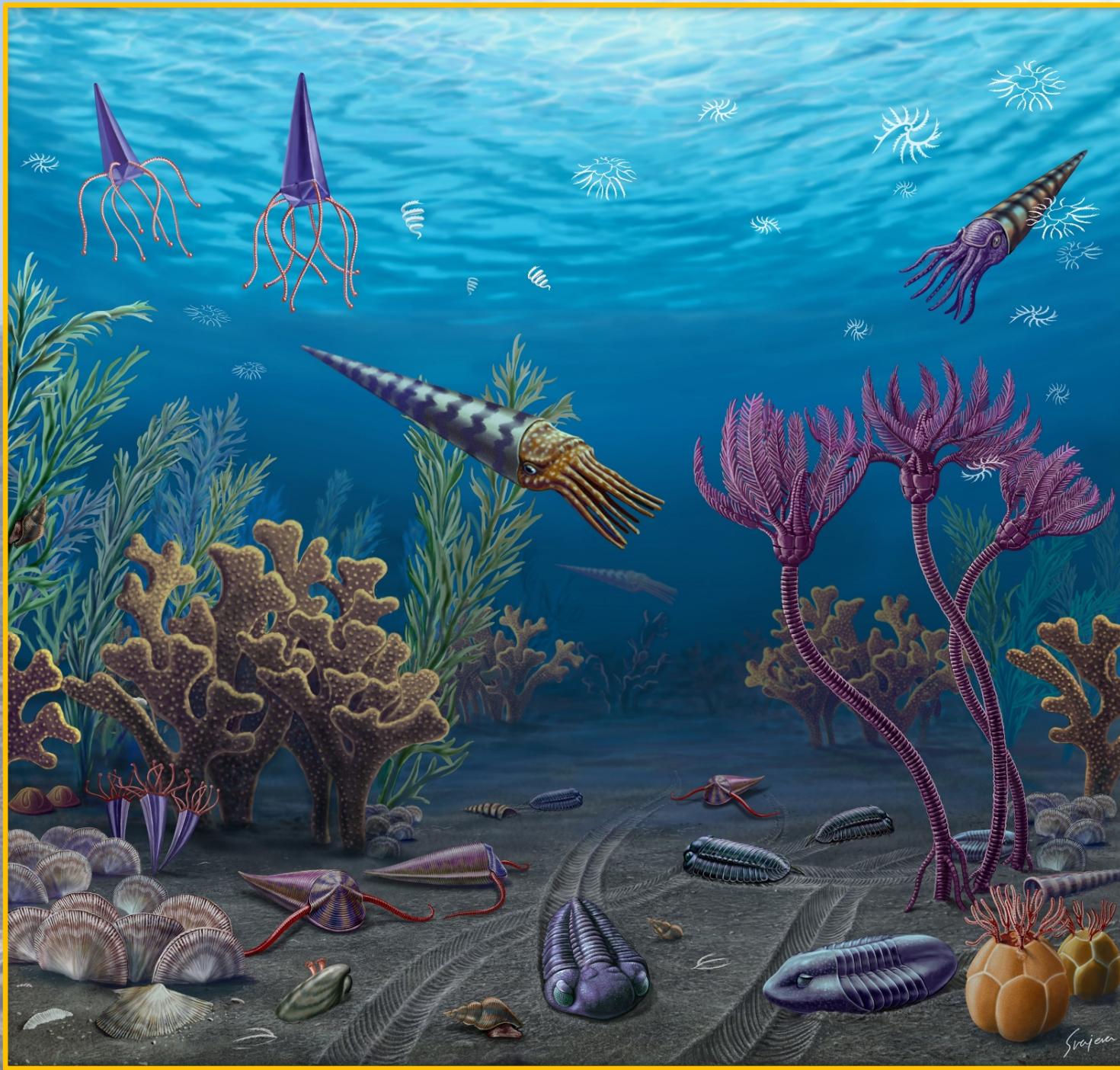


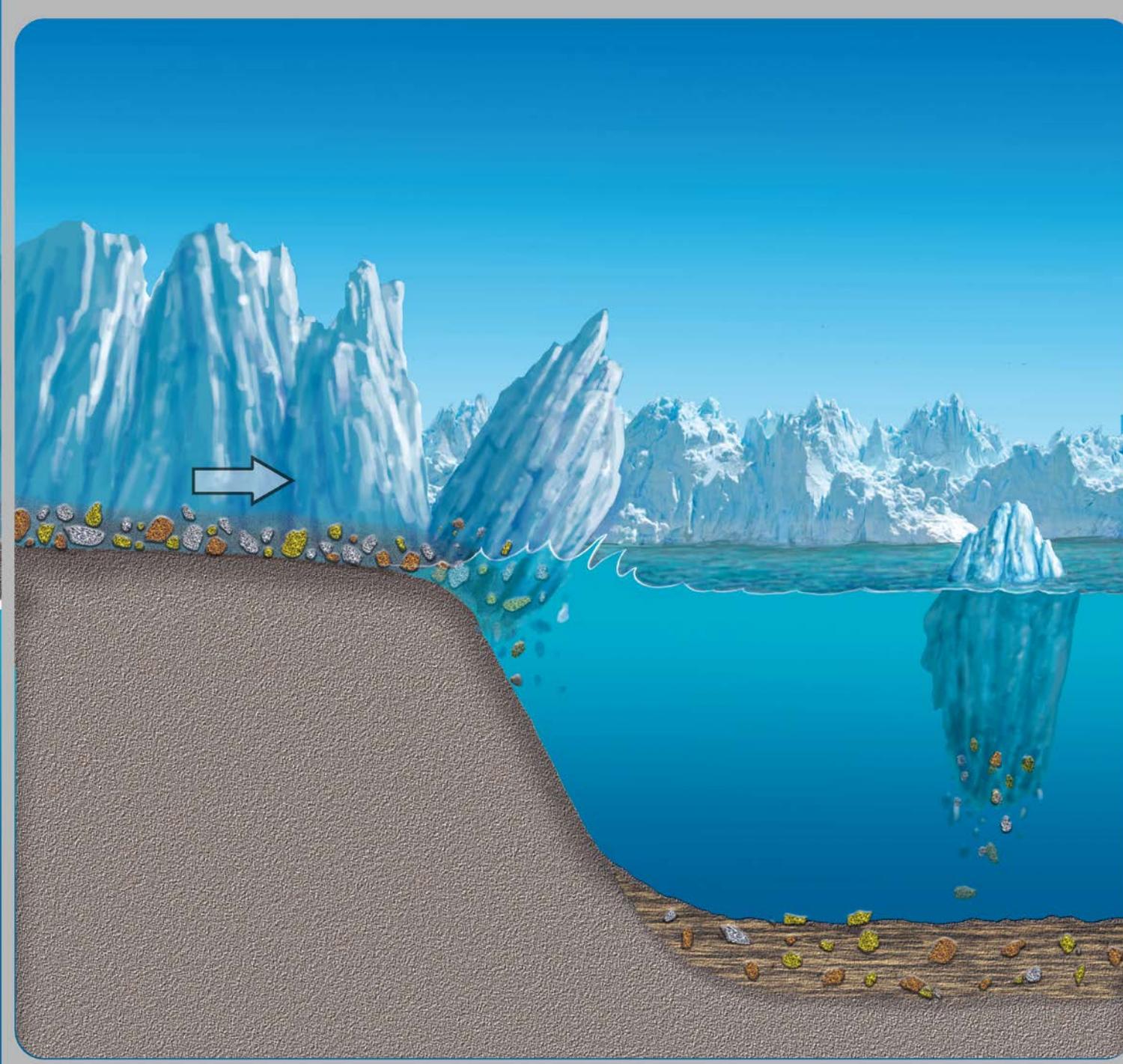
Ortoceratid



Echinoderm -crinoids

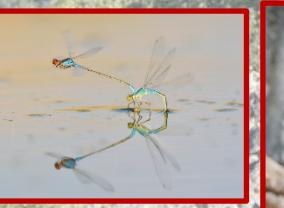
Antonio Grajera



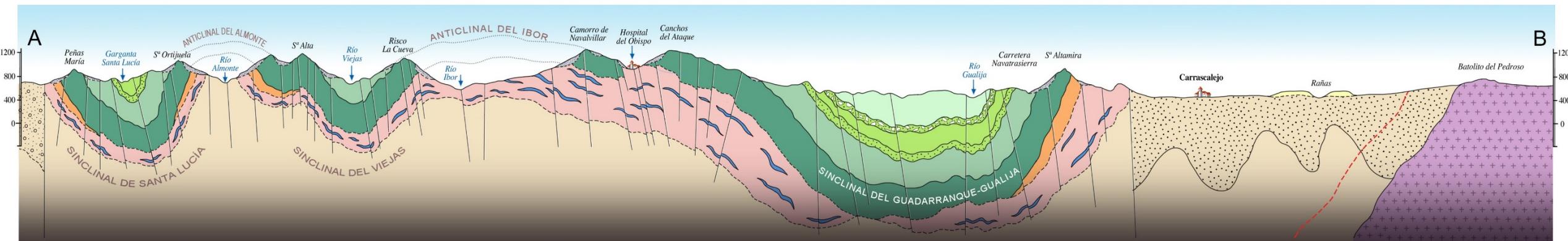
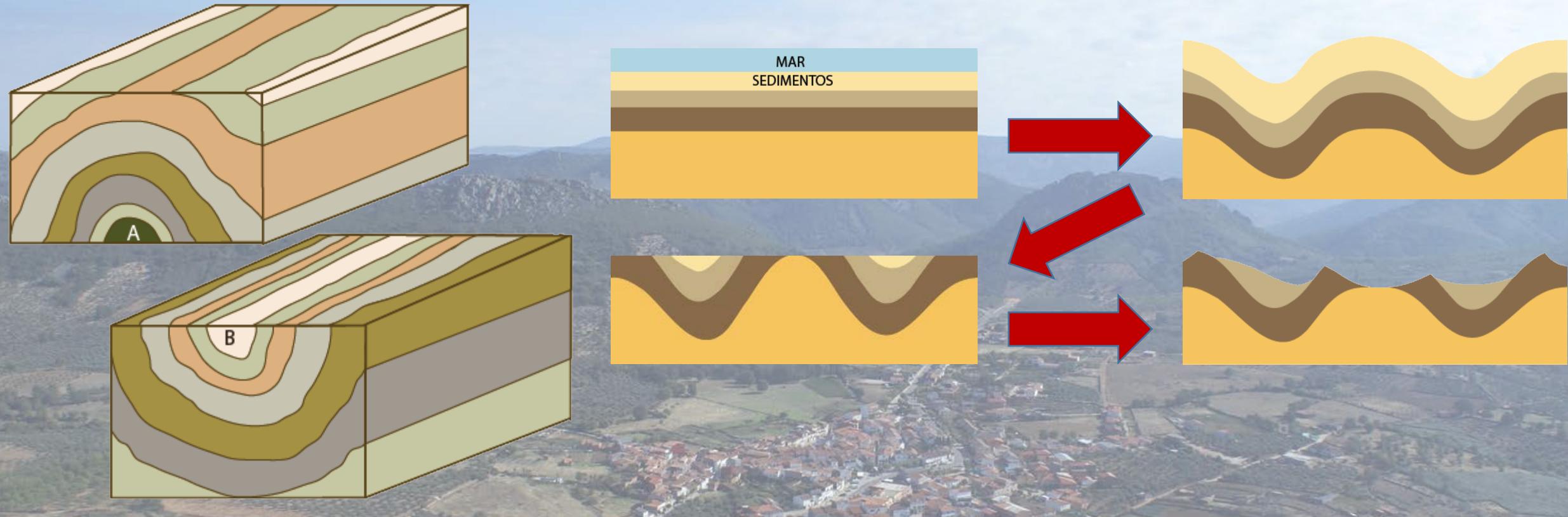


diamictites



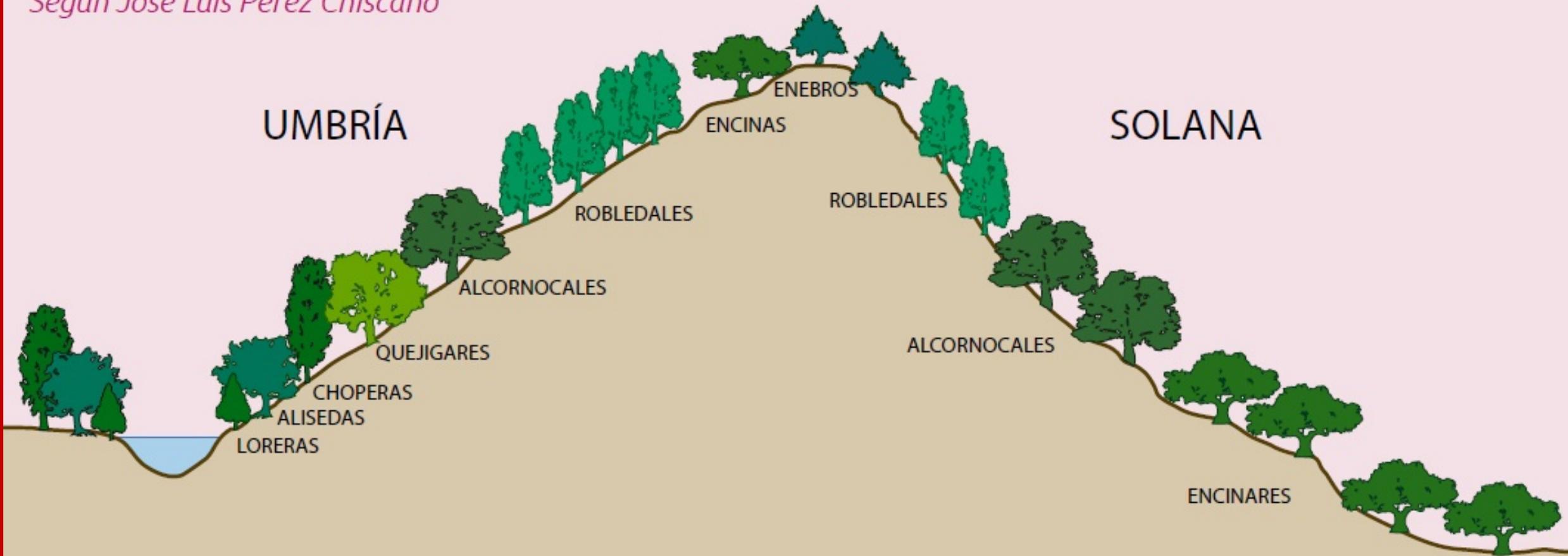


Sinclines and anticlines: Inverted relief.



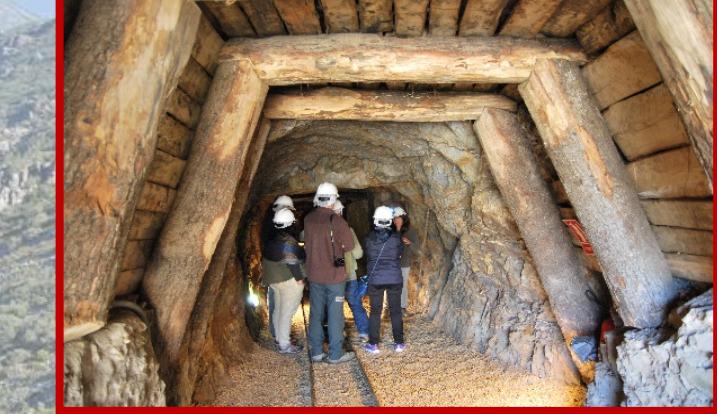
CLISERIE DE VEGETACIÓN DE VILLUERCAS

Según José Luis Pérez Chiscano

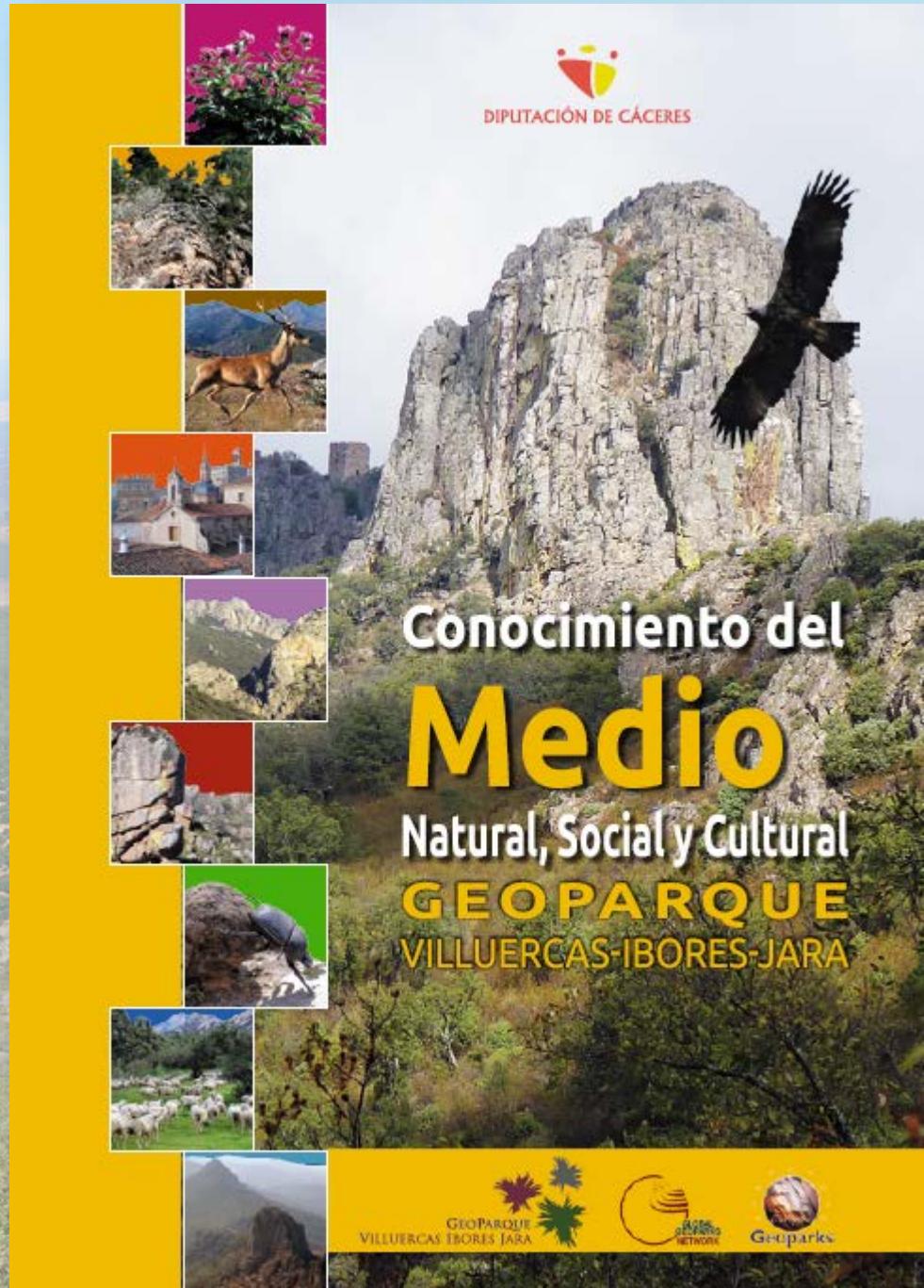












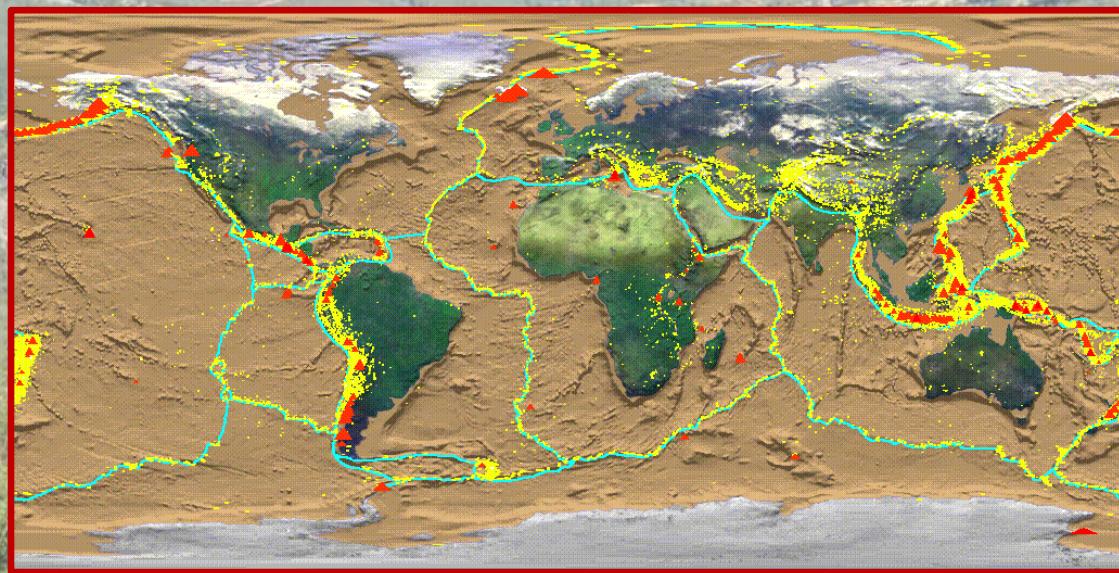
The image shows a collage of nine brochures or leaflets arranged in a grid-like pattern, each featuring a large white number in the top right corner and a specific topic in the center. The topics include:

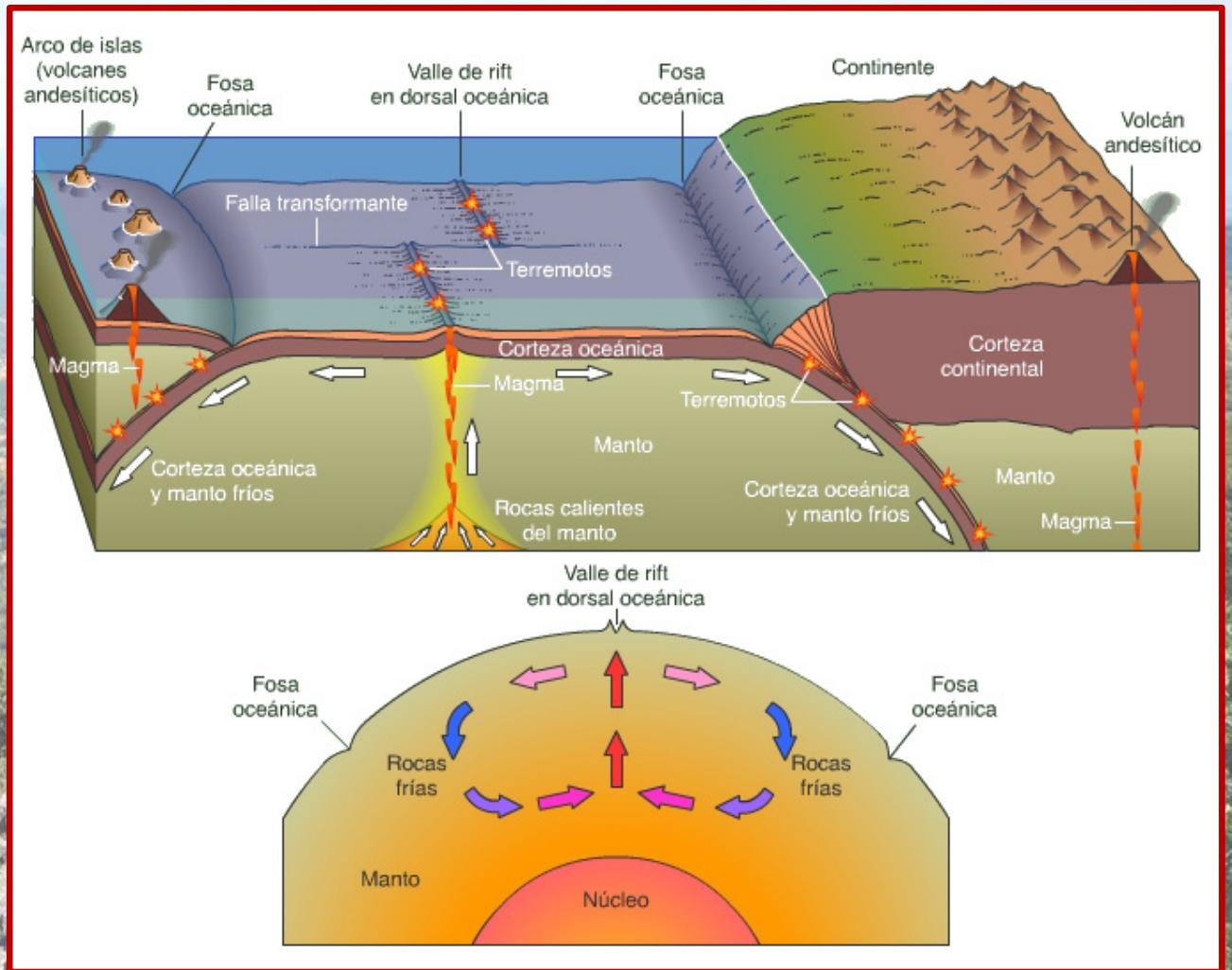
- 3 La Geología como Ciencia**: A red brochure showing a large rock formation.
- 4 La Geología del Geoparque Villuercas-Ibores-Jara**: An orange brochure featuring a landscape photo and a detailed diagram of a cave formation.
- 5 El medio natural: ecosistemas**: A green brochure with a close-up photo of a beetle.
- 8 Actividades económicas de los pueblos del Geoparque**: A blue brochure showing a landscape with sheep.
- 9 Historia, Cultura y Tradiciones**: An orange brochure showing a painting of a castle.

Each brochure also contains descriptive text and small images related to its topic, such as fossils, geological formations, and local landscapes.

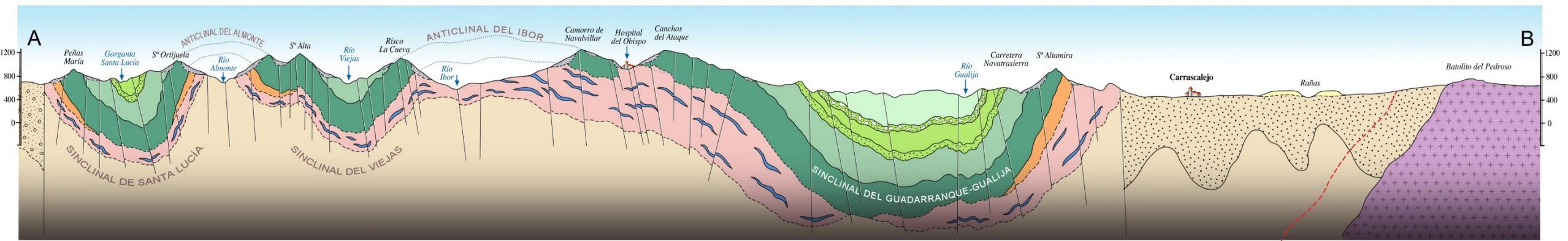














EL GEOPARQUE ANTES DEL GEOPARQUE THE GEOPARK BEFORE THE GEOPARK

LA MINERIA EN LOGROÑÁN. MINING IN LOGROÑÁN

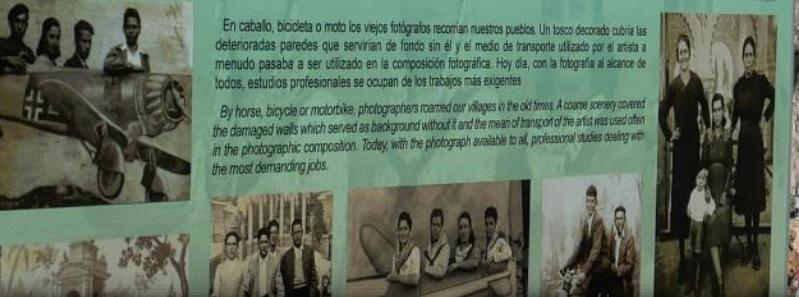
Con la revolución industrial, se ponen en cultivo grandes extensiones de terreno y se dispara la demanda de abonos para la agricultura. La búsqueda de nuevas fuentes de materia prima para atender esta demanda atrae a las compañías mineras inglesas a Logroñán en busca de la Fosforita. La mayor parte del mineral se transformó en Fosfatos en la fábrica de Logroñán dando trabajo a la población, hasta que se cierra en 1946.

With the industrial revolution, large tracts of land are put into cultivation and demand for fertilizers for agriculture is skyrocketing. The search for new sources of raw material to meet this demand attracts the English mining companies to Logroñán in search of the Fosforita. Most of the ore was transformed into Phosphates in the factory of Logroñán, giving work to the population, until it closes in 1946.



EL GEOPARQUE ANTES DEL GEOPARQUE THE GEOPARK BEFORE THE GEOPARK

FOTOGRAFOS AMBULANTES. TRAVELING PHOTOGRAPHERS



En caballo, bicicleta o moto los viejos fotógrafos recorren nuestros pueblos. Un tosco decorado cubría las deterioradas paredes que servían de fondo sin él y el medio de transporte utilizado por el artista a menudo pasaba a ser utilizado en la composición fotográfica. Hoy día, con la fotografía al alcance de todos, estudios profesionales se ocupan de los trabajos más exigentes.

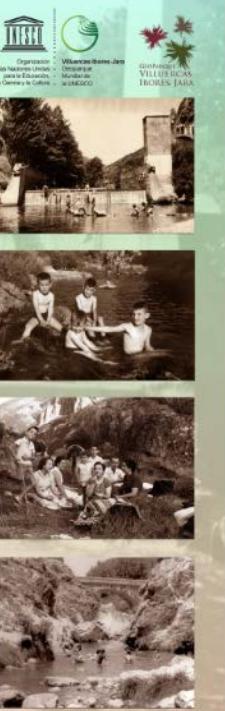
By horse, bicycle or motorcycle, photographers roamed our villages of the old times. A coarse scenery covered the damaged walls which served as background without it and the mean of transport of the artist was often used in the photographic composition. Today, with the photograph available to all, professional studies dealing with the most demanding jobs.

EL GEOPARQUE ANTES DEL GEOPARQUE THE GEOPARK BEFORE THE GEOPARK

NUESTROS RÍOS. OUR RIVERS

Las remansadas y profundas pozas cuarcíticas fueron objeto de esparcimiento para paisanos y forasteros en las calurosas tardes del verano.

To its inhabitants, at other times, calm water in deep quartzite pools served as recreational pools for civilians and foreigners enjoyed in the hot summer afternoons.



EL GEOPARQUE ANTES DEL GEOPARQUE THE GEOPARK BEFORE THE GEOPARK

VILLUERCAS-IBORES-JARA

Bienvenidos a la historia de la Tierra, de nuestra tierra, nuestra historia.

¿Cómo era nuestro Geoparque Mundial de la UNESCO Villuercas-Ibores-Jara antes de ser declarado como tal? ¿Cómo veían los gentes sus habitantes? ¿Cómo han cambiado nuestros pueblos en las últimas décadas? ¿Y sus gentes? Los trajes y costumbres?

Fotos recogidas en sus casas por los vecinos de los geoparques (los carteles educativos del geoparque) nos permiten ver cómo ha cambiado todo. Imágenes de algunas de las más emblemáticas del geoparque. Fotos de las familias que mejor saben lo que es vivir de un entorno privilegiado y vivir en él, a pesar de las situaciones que plantea, entonces y aún ahora, para la vida cotidiana.

Es una gran experiencia pedagógica, un material sobre el que los escolares pueden reflexionar y discutir ideas en el aula. Con todo ello, se potencia el valor de los pueblos.

EL GEOPARQUE ANTES DEL GEOPARQUE THE GEOPARK BEFORE THE GEOPARK

VILLENA-ALMOCÍBAR

Welcome to the History of the Earth, of our land, our history. How was our Villuercas-Ibores-Jara UNESCO Global Geopark before being declared as such? From how their inhabitants see the general? How have their villages changed in the last decades? And its people? Their works and customs?

Photos collected in their houses by the schoolchildren of the geopark schools allow us to see how all that has changed. Images of some of the most emblematic sites of the geopark. Photos of families who know best what it is to enjoy a privileged environment and live in it, despite the difficulties it poses, then and now, for everyday life.

This is a great pedagogical experience, a material on which schools can carry out activities in the classroom. With all that, they can understand and discuss issues related to the rural areas.

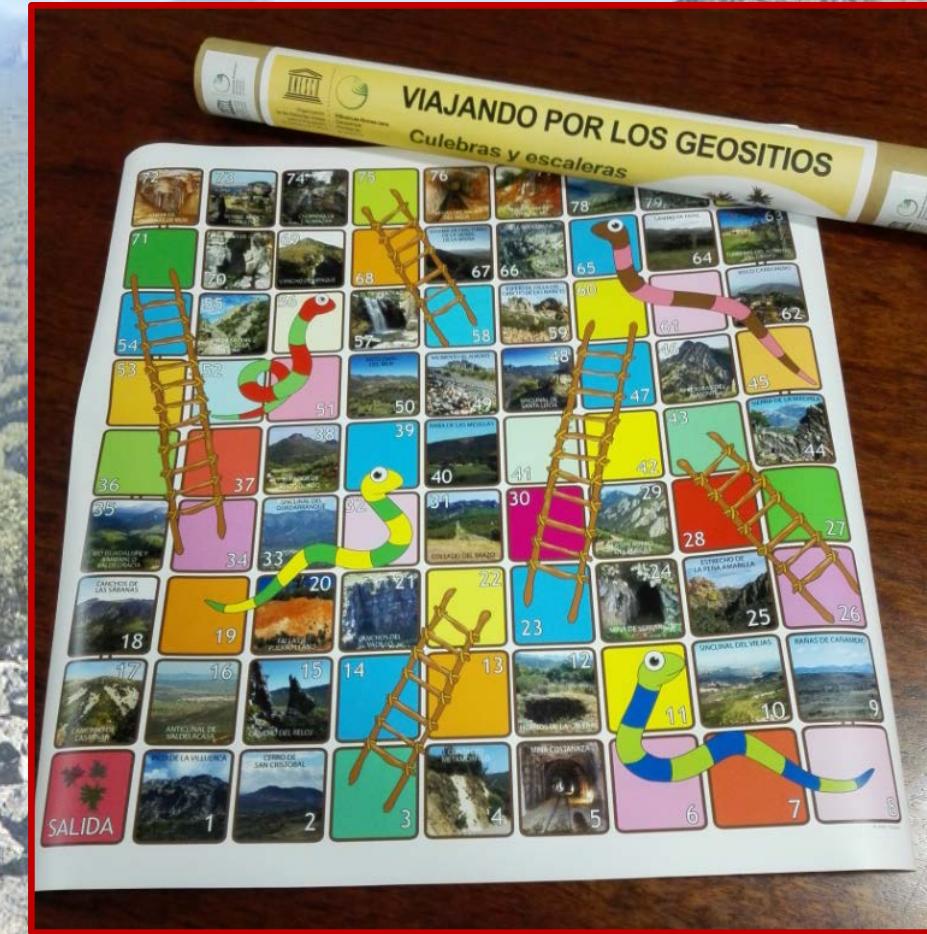
EL GEOPARQUE ANTES DEL GEOPARQUE THE GEOPARK BEFORE THE GEOPARK

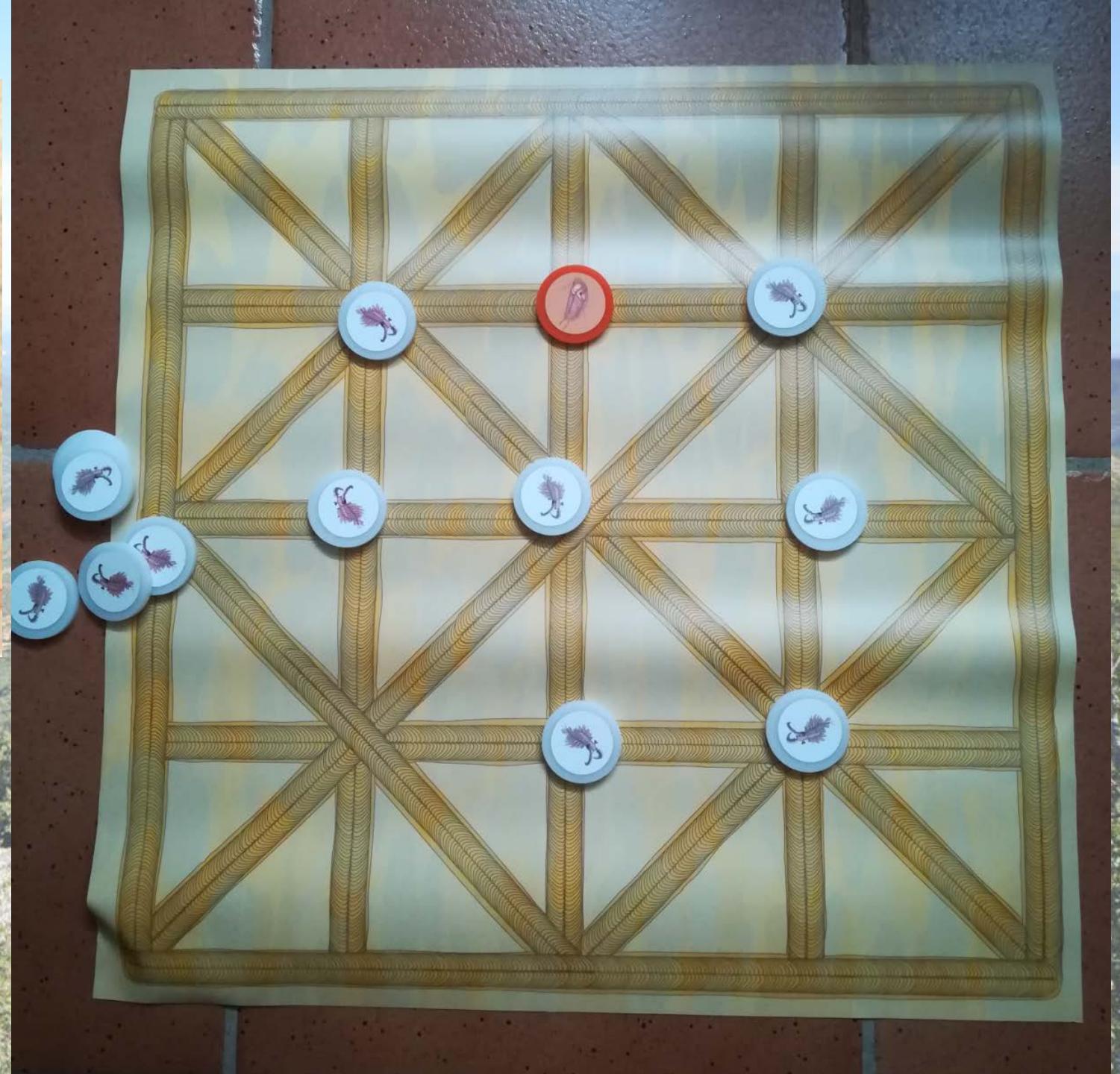
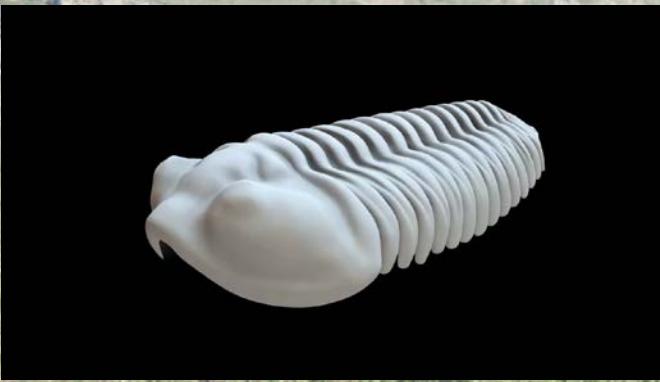
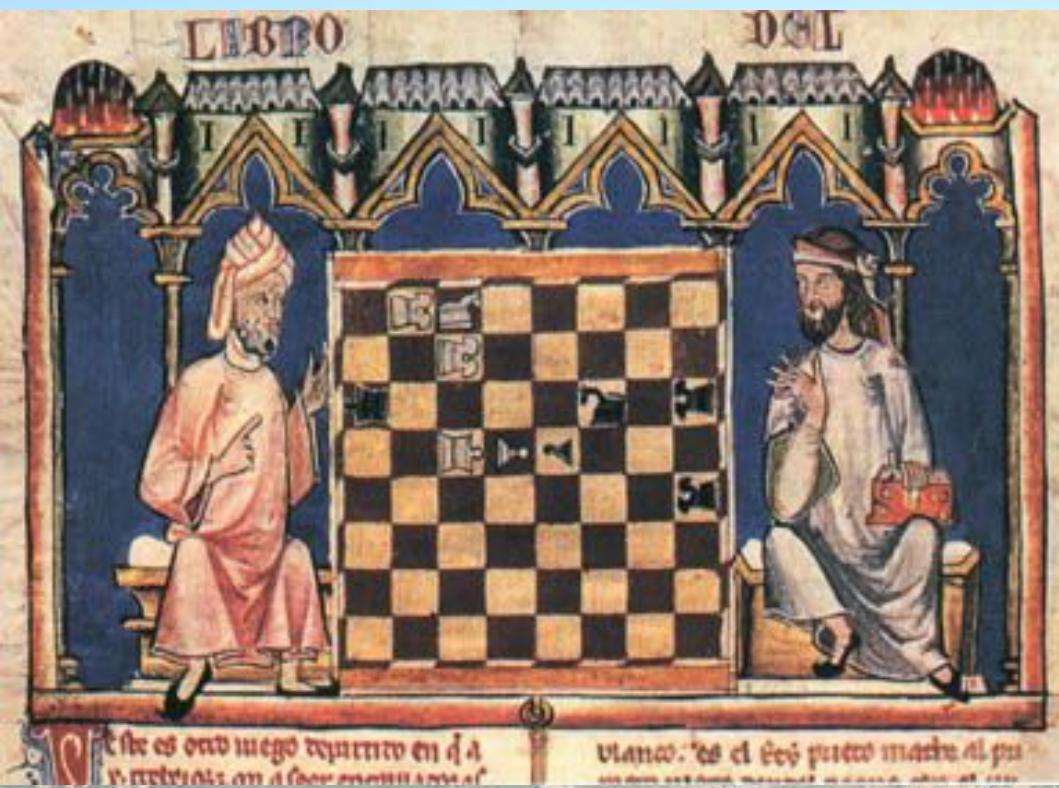
VILLENA-ALMOCÍBAR

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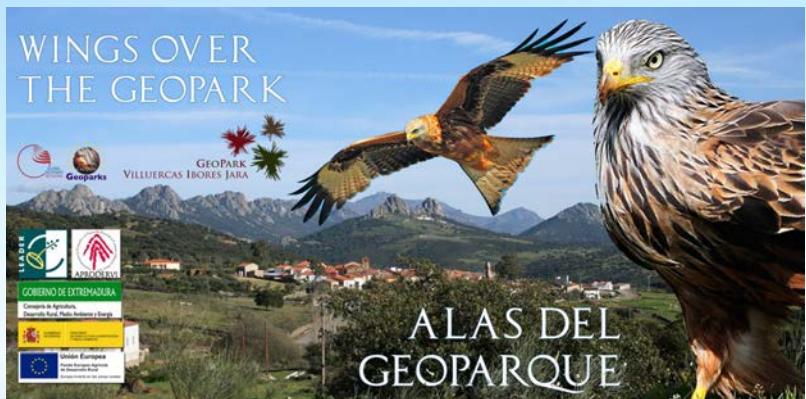
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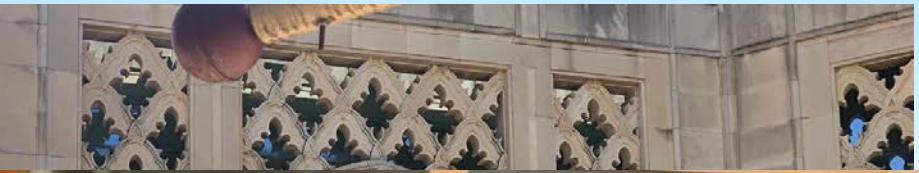












United Nations
Educational, Scientific and
Cultural Organization



Lesvos Island
UNESCO
Global Geopark



UNESCO GLOBAL GEOPARKS



13 OCTOBER

INTERNATIONAL DAY FOR DISASTER RISK REDUCTION



globalgeoparksnetwork.org



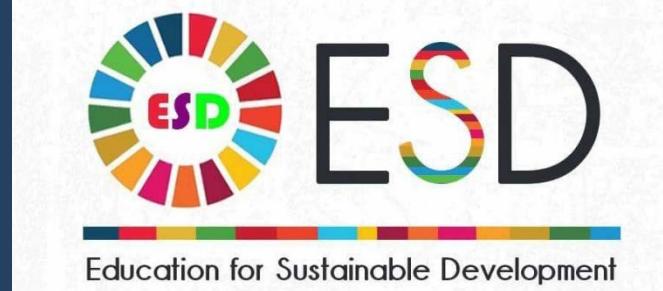
5 GENDER EQUALITY



**Empowering girls to become
the geoscientists of tomorrow**



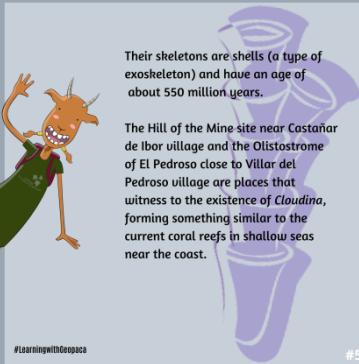
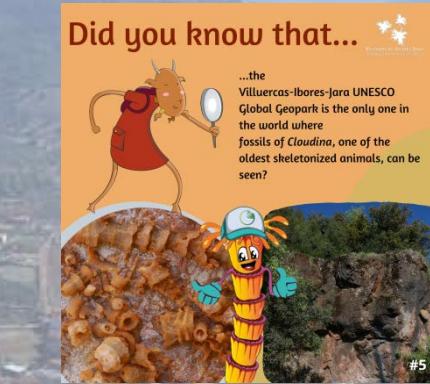
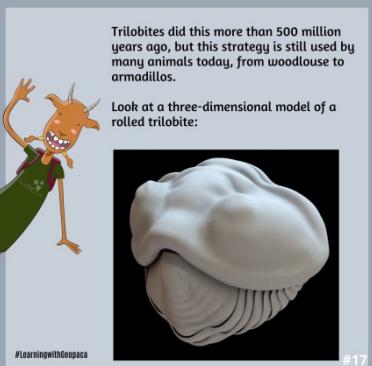
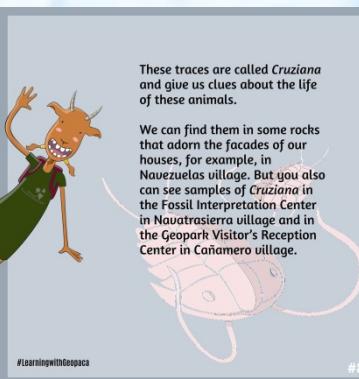
Education and heritage in times of COVID-19

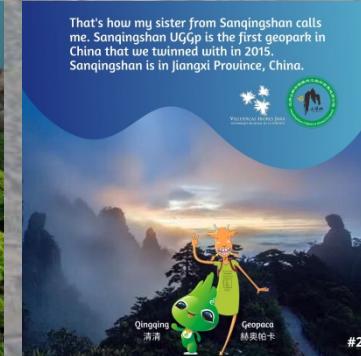
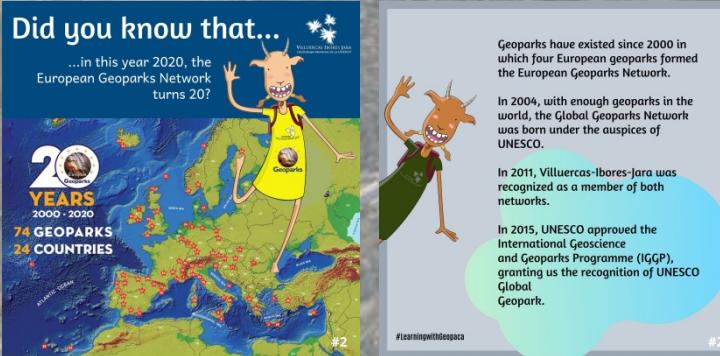
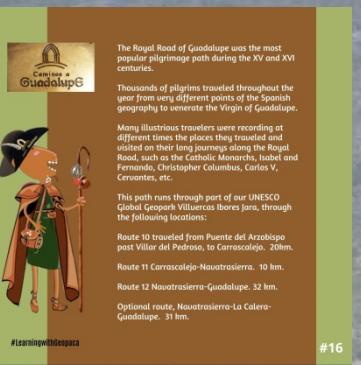
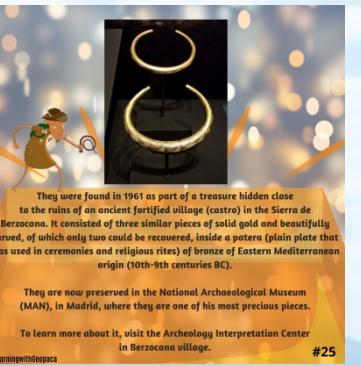


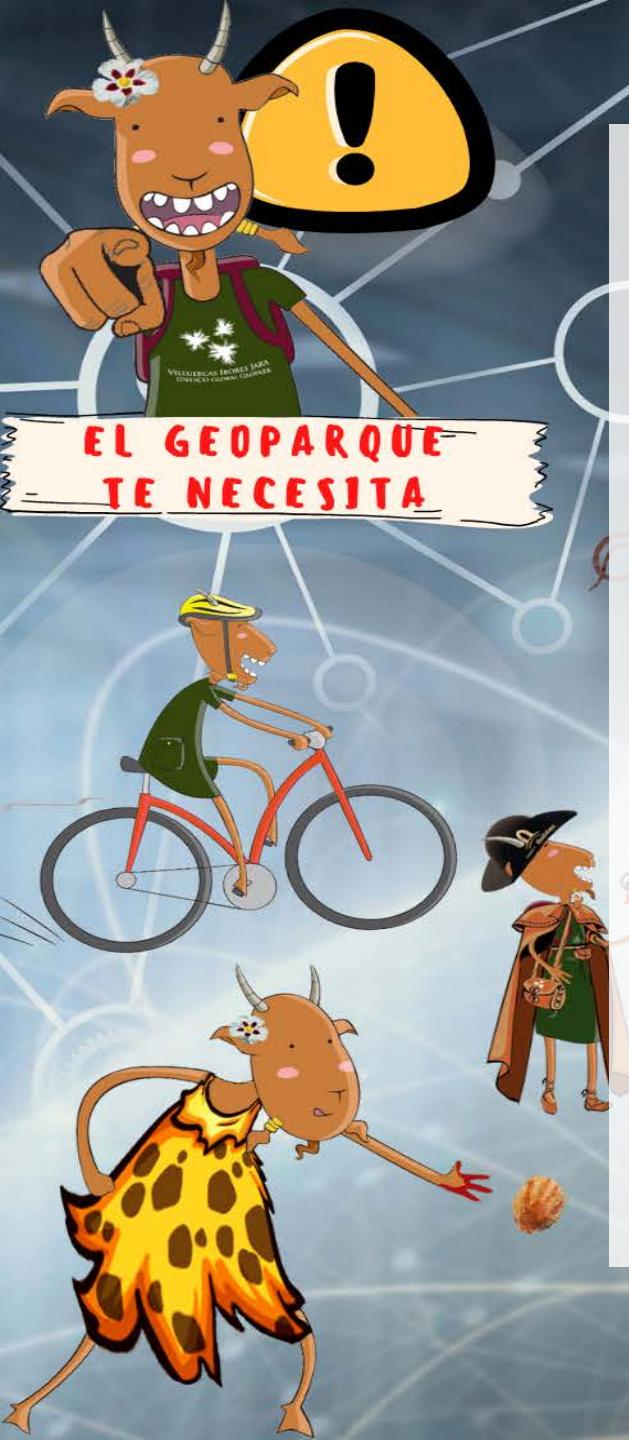
**Work within the UNESCO
framework of Education for
Sustainable Development**

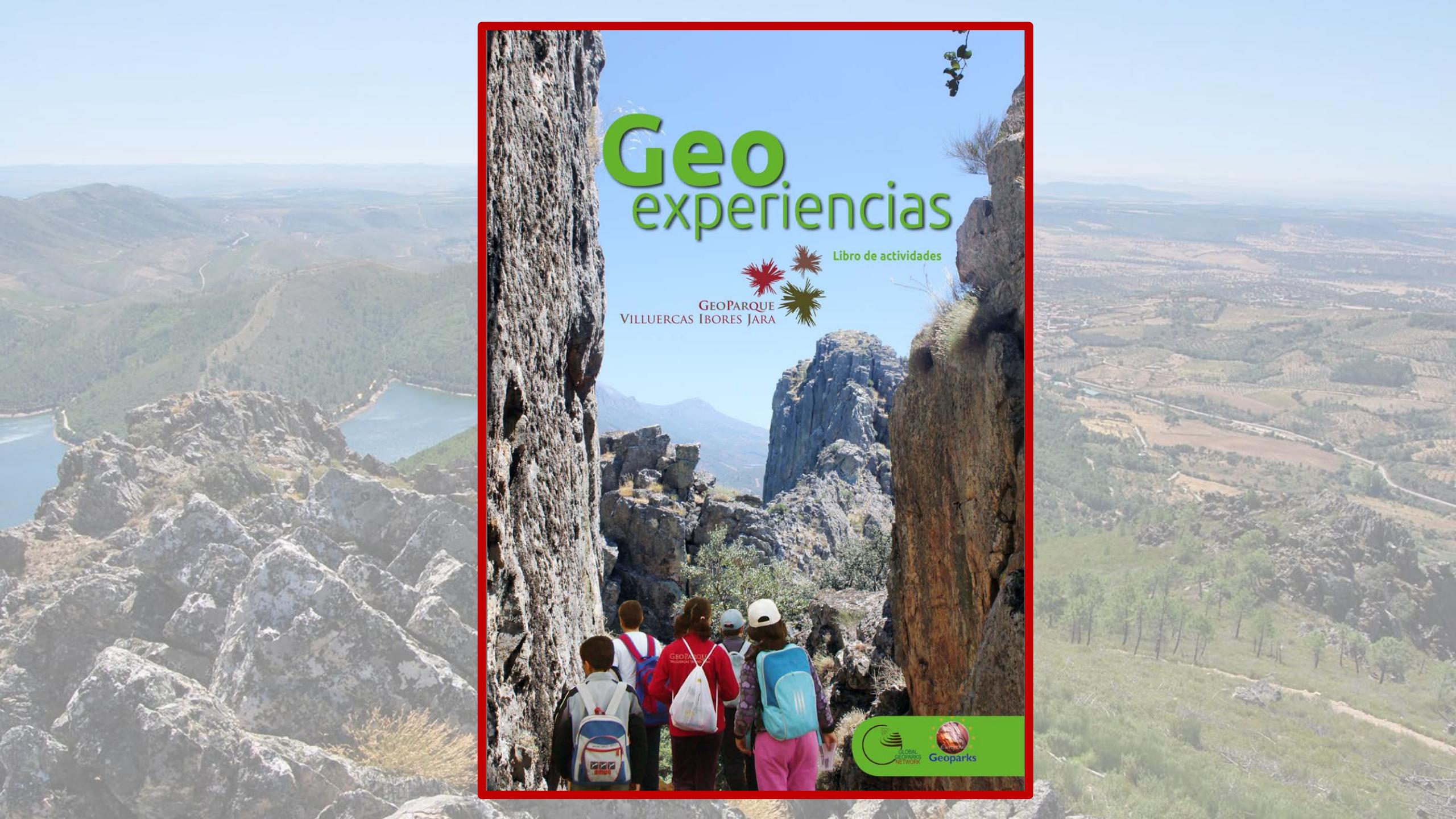


LEARNING WITH GEOPACA!









Geoexperiencias

Libro de actividades

GEOPARQUE
VILLUERCAS IBORES JARA

GLOBAL GEOPARKS NETWORK

Geoparks

The image shows the front cover of a booklet titled "Geoexperiencias". The title is in large green letters at the top. Below it is a logo consisting of three stylized leaf-like shapes in red, orange, and green. The text "Libro de actividades" is to the right of the logo. At the bottom left, it says "GEOPARQUE VILLUERCAS IBORES JARA". At the bottom right, there are two logos: "GLOBAL GEOPARKS NETWORK" and "Geoparks". The background of the booklet cover features a photograph of four people from behind, looking out over a rocky cliff edge at a vast valley below. The entire booklet is framed by a thick red border.







CENTRO DE VISITANTES DE CAÑAMERO



OFICINA DE TURISMO DE GUADALUPE



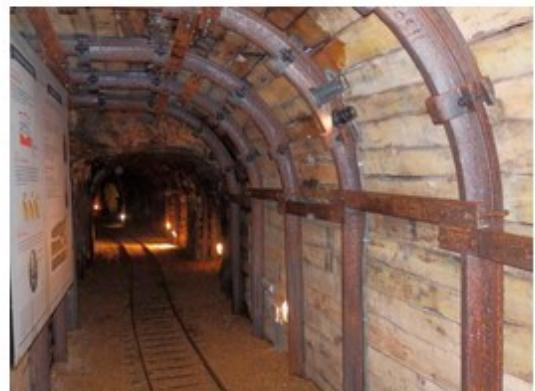
MUSEO GEOMINERO DE LOGROSÁN



C.I. DE LA CUEVA DEL CASTAÑAR



C.I. DE LA ZEPA SIERRA DE VILLUERCAS



MINA COSTANAZA DE LOGROSÁN

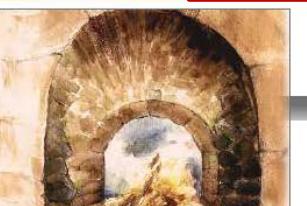
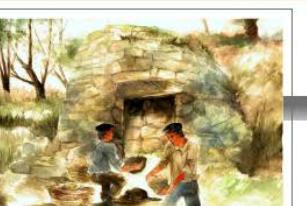


C.I. DE ARQUEOLOGÍA COMARCAL

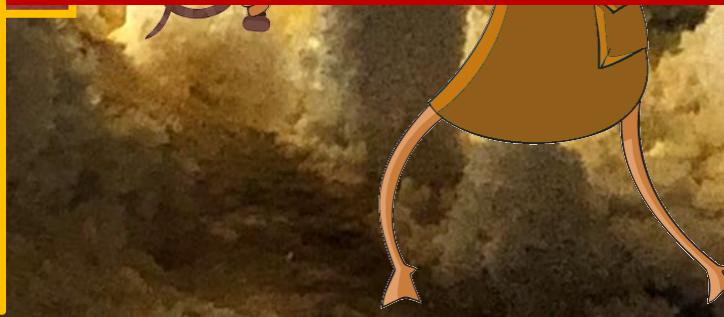


C.I. HORNOS DE LA CALERA

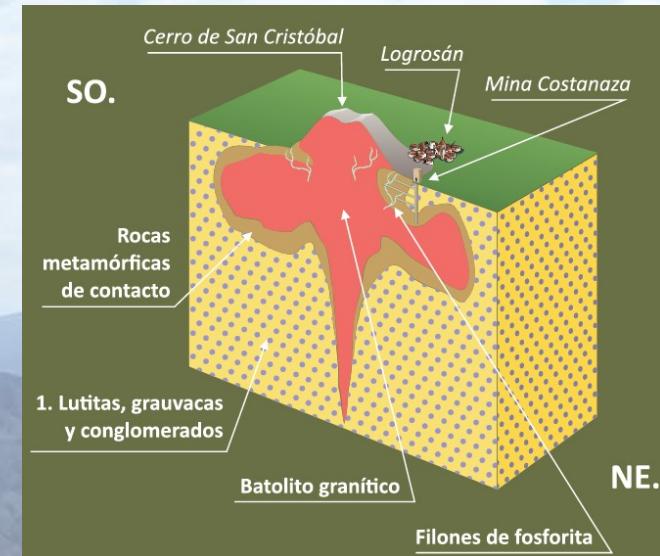
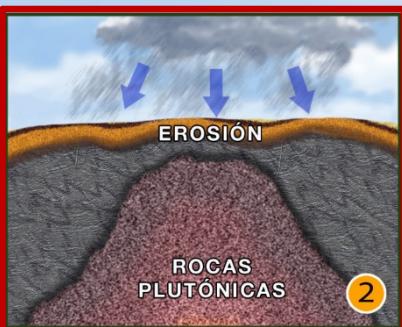
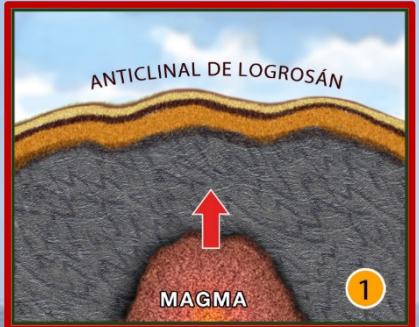




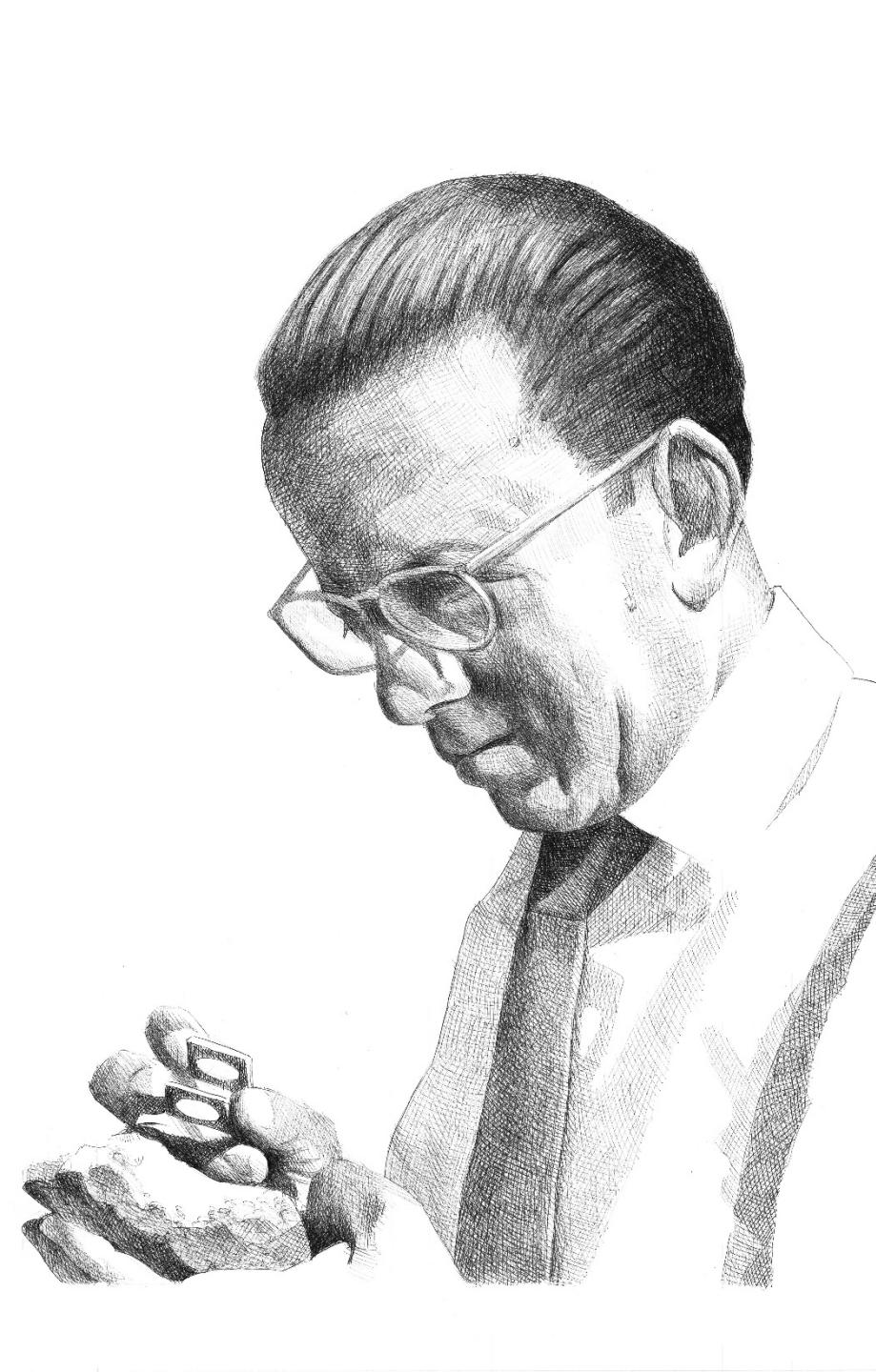




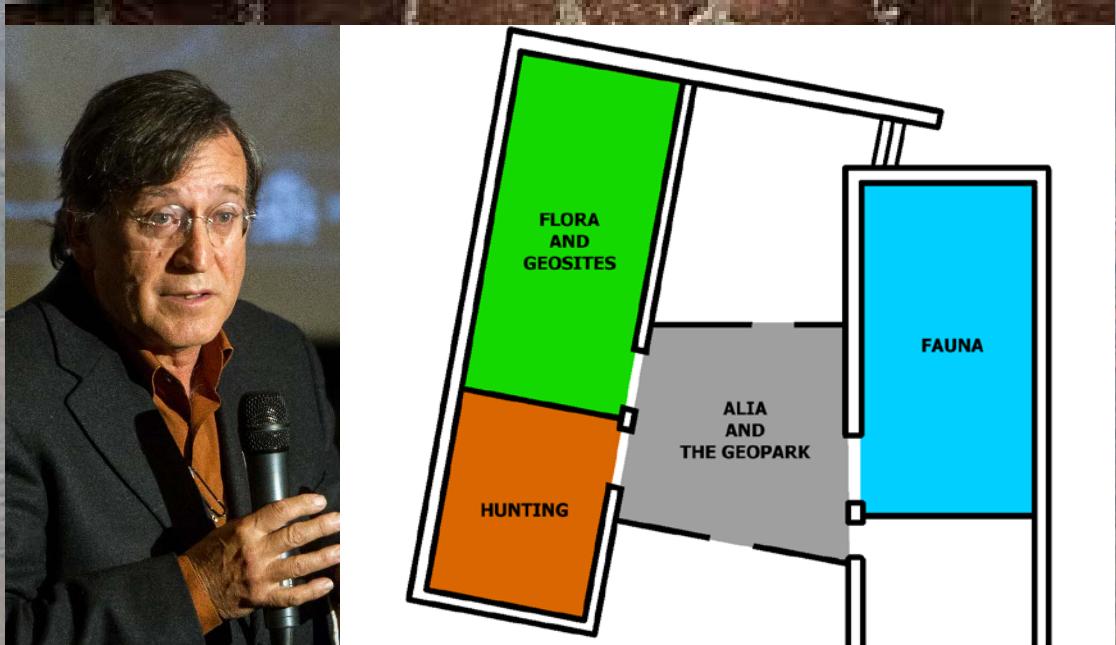
Granitic stock of Logrosán, «cerro de San Cristóbal»







Vicente Sos Baynat
(by Manuel García)



CONSEJOS PARA TU VISITA AL GEOPARQUE
ADVICE FOR YOUR VISIT TO THE GEOPARK

No hagas fuego ni lo provoques por descuido
Do not cause a fire due to carelessness

las fuentes, ríos y pozos
are of the fountains, rivers and wells

libre
free

la flora
flora

tras de rocas o fósiles
fossil samples

e los caminos señalizados
posted paths

como estaban
and them

el contenedor más cercano
nearest bin

ratados para no molestar
leash as not to disturb others

los equipamientos
facilities

estás en un lugar único
surroundings, you are in a unique place

Gualija

Salomera 955 m Loma de la Alpujarra Sierra de la Enebrera

GUÍA TURÍSTICA

Geoparque Mundial de la UNESCO
VILLUERCAS IBORES JARA

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42 geositios
Más de 200 imágenes
Gráficas interpretativas
... y mucho más

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8 Trilobites
7 Crinoideos
6 Cruziana
5 Skolithos
4 Daedalus
3 Cloudina
2 Sabelliditidos
1 Vendoténidos

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JUNTA DE EXTREMADURA

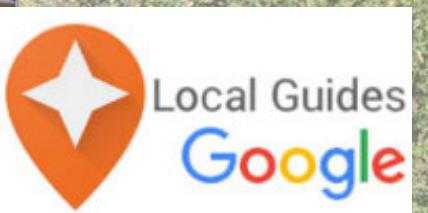
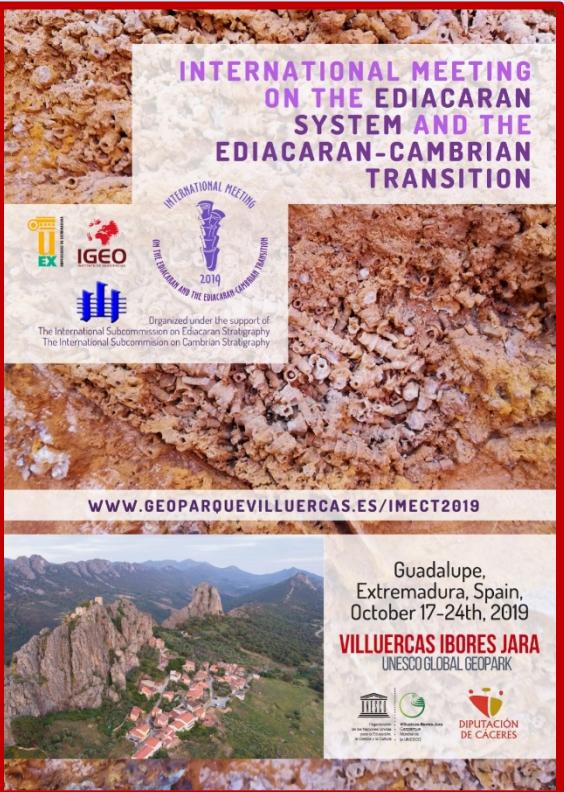
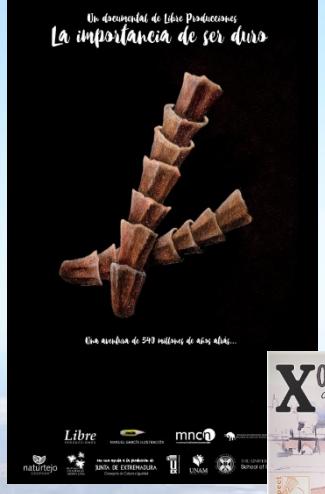
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**VILLUERCAS-IBORES-JARA
GEOPARQUE MUNDIAL DE LA UNESCO**





A (global) heritage to now, respect, and conserve for the future;
and use its charm to serve local community (and all of us)
in a sustainable way.

Thanks so much!!! Take care and enjoy!



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