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Interview

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The exceptional sky of Montsec and the commitment to turn it into an element of tourist development are the reasons why it has been recognized internationally as one of the best skies in the world for astronomical observation and for enjoying starlight since 2013. UNESCO's «Man and Biosphere» (MaB) program certified the Montsec sky as a Tourist Destination and Starlight Reserve and renewed the accreditation in 2017.

The Astronomical Park of Montsec is the basic pillar of research, training and dissemination of astronomy in Catalonia. From 28 October to 1 November, the 8th Montsec Astronomy Festival will take place with the aim of bringing science closer to the young and old as a new form of tourism: Tourism of the Stars. Salvador Ribas, Director of the Montsec Astronomical Park, talked about this event and The Astronomical Park's plans.

-UNESCO's program certified the sky of Montsec as a Tourist Destination and Starlight Reserve. What does it mean?

-First, it should be clarified that the Starlight Foundation conducts the certification and UNESCO approves the certification.

The Starlight Destinations are visitable places characterised by excellent quality for the contemplation of starry skies and the practice of tourist activities based on this resource.

The Starlight Certification seeks to guarantee the capacity to enjoy the view of the stars and discover the associated scientific, cultural, natural and scenic values.

-What is Star Tourism today?

-The Starlight Certification made it possible to combine science and tourism for the first time and aims to ensure the quality of tourism experiences involving the night scapes, the view of stars and the cosmos and the related scientific, cultural and environmental knowledge. Recognition of science as a tourist product and, at the same time, as a working method in tourism, is the foundation of developing this standard. The Starlight Tourism Certification System was created to improve, at a worldwide level, the quality of tourist experiences and protect the night skies in Starlight Destinations.



Director of the Montsec Astronomical Park

known as Astro Tourism.

-Please tell us about the tourism infrastructure of Montsec Park. Are there restaurants and hotels? Who are your tourists?

-Our park is open to visitors of all ages. We have school groups, and these are children from three years old. Both students and adults visit us. Our planetarium is open day and night.

We don't have restaurants or hotels. However, our guests can stay near the Montsec mountain range. In this way, we support this small segment of private tourism infrastructure and help the survival of an area that would otherwise have many problems.

Is this tourist infrastructure near the park?

-The campsites and the first hotels are gradually appearing in the Serra del Montsec area. But the main tourist infrastructure is located between Balaguer and Tremp, which is about twenty minutes by car south or north of the national park. Many guests are accommodated mainly in

«Every 11 years the sun peaks in activity and affects the climate of the planet in terms of radiation. We have had two decades of rising temperatures. The statistics say that the trend will go up and no matter whether the sun should be blamed, we must interact

-How did this idea come about? Who stood at its origins?

-The participants of the International Conference in Defense of the Quality of Night Sky and the right to observe stars, jointly with the representatives of UNESCO, UNWTO, IAU and other international agencies and members of the academic community met in La Palma (Canary Islands, Spain) in April 2007 and made a declaration that the Starlight vista has been and continue to be an inspiration of the

«Climate changes are not the exclusive result of humans, but we do have a direct influence»

mankind and that its contemplation represents an essential element in the development of scientific thoughts in all civilizations.

The declaration was renewed during its tenth anniversary in April 2017 and occurred at the Preserving the Skies Congress on La Palma Island.

This year the Starlight Foundation commemorated fifteen years since the signing of the 'Declaration of La Palma' in Defense of the Night Sky and the Right to the Starlight.

Step by step, Star Tourism became a tourism revolution that spread quickly in many places in Europe, America and Asia. Gradually, star tourism is expanding around the world. And it continues to develop, as the population has an interest in visiting these kinds of places. So, this is what we understand today from Star Tourism, which is also

with the environment responsibly»

these cities in the summer and during the Easter holidays.

-How many tourists have visited the park in recent years?

-In 2021, about twenty-five thousand people visited us. Before the pandemic, for example, in 2019 we received about thirty-five thousand guests. Of course, 2020 and 2021 were far from the most successful years, but forecasts for this year show that we are gradually reaching the previous level.

-Are there any tourists from Andorra?

-Yes, we have guests from Andorra. There are many schools in Andorra where there are Spanish, French and Andorran people, who are also



►► «We are working on a renovation that we can conduct next year with an investment of 650,000 euros»

interested in visiting our park. Mostly we are talking about oneday visits, from about 9:30 to lunch. Schoolchildren have picnics right in the park, walk around its territory and do some activities.

We also have many visitors from Barcelona and southern France.

-What events do you have planned for the end of this year?

-From 28 October to 1 November, the annual festival of astronomy, which is a kind of Festa Major of the astronomical park, will be held at the top of Monsec. This is a time of planned activities that are in addition to what we are doing. So, Also, we will hold a concert on 13 December.

In addition, every weekend we hold night events.

-What is a park in terms of science? Are scientists involved in its work?

- Our main function is communication and education. We attract the public, schools, and students at the universities of Barcelona, who spend their practical classes here, studying astronomy using our equipment.

I must say that both at the national and international levels, the issue of protecting the night sky from light pollution is of great concern. And all the research conducted here is closely related to this issue. So, this is a small area of research that the technical team of the park is doing. It studies the characteristics of our sky and other celestial bodies. There are also research centres in Montsec, such as the Institut d'Estudis Espacials de Catalunya, which are dedicated exclusively to research.

-Is the concept of the park different from, for example, Pic du Midi in France?

-Yes, exactly. Pic du Midi is a huge complex with scientific and tourist infrastructure. We cooperated with them concerning some issues.

But conceptually, Montsec also has both sides, but they are not in the same place.

There is a part that is lower and correspondingly closer to the population to be able to perform this informative and educational function. And the research centre is at the top about 12 km.

are your plans?

-Now the most important point for us is the renovation of our planetarium, which is the eye of Montsec. This planetarium is nearing the end of life because the equipment dates to when it was opened between 2008 and 2009. Time passes, and although telescopes last a long time, there also comes a time when they must be renewed.

We are working on a renovation that we can conduct next year with an investment of 650,000 euros. And this is a fundamental investment.

We also need to upgrade the entire audio-visual system and increase the capacity of the planetarium. Therefore, if nothing happens next year, we will have a new planetarium with new technologies and a larger capacity. This means that we will be able to serve our guests more and better.

In the next four to five years, our investments will amount to about one million two hundred thousand euros, approximately between 2022 and 2026. By 2026, we expect to update almost all equipment with the latest technology.

Among the long-term projects is the creation of open-air spaces, such as an open-air museum. We have land around the park to expand into, but an expansion will not occur for at least another ten years from now.

-What universities do you cooperate with?

-We have contracts for practical training with students from the University of Barcelona and the Autonomous University of Barcelona. These two Catalan universities provide training in physics and astrophysics. We can also conduct internships for students who complete their studies.

-Do climatologists work at the observatory?

-We do not have specialists in the field of meteorology and climate. Yes, our team at the top has meteorological equipment, but we don't have a team that is like, for example, the Fabra Planetarium in Barcelona, which is the hallmark of the city, because there was a meteorological service.

with other observatories, especially neighboring France and Spain?

-We recently had a meeting of Spanish observatories in La Coruña.We meet regularly to study the evolution of such a didactic instrument as an observatory. This year we conducted a study on this issue.

We also have a single network with all the museums that promote science. It is also important to mention that some science museums have their observatories.

Moreover, for more than tenyears we have been collaborating with the Paris Observatory, which uses part of its infrastructure to observe the flow of stars and meteorites and has equipment located in our astronomical park. So, they can receive data from here and then combine it with all the observatories in France.

And we do the same.

We have research collaborations with other centers and research groups that are also working on the problem of light pollution.

We also conduct internships at the University of Sherbrooke in Canadain the Quebec region, which is very close to Montreal. We work closely with them even though we are not so close to them.

-This year, climate change is more visible than ever. NASA tells us that the sun is in a moment of superb activity and that it has a direct effect on the earth and subclimate. Does the scientific community believe that climate change is the result of human activity only, or is it also a consequence of global changes?

-In the history of the Earth, climate changes have been common and by this, I mean that they have happened before the appearance of humanity. Climate changes are not the exclusive result of humans, but we do have a direct influence. The sun has an activity cycle of 11 years. Every 11 years the sun peaks in activity and affects the climate of the planet in terms of radiation. This year has been extremely dry here in Catalonia. We have had two decades of rising temperatures and we cannot blame the sun for this.

we will have concerts and several other cultural events, scientific experiments and master classes. It is designed for a family audience.

This will be the highlight of the fall.

-How will the park develop? What

-How do you coordinate your job

This year has been exceptional, we'll see next year. The statistics say that the trend will go up and no matter whether the sun should be blamed, we must interact with the environment responsibly.≡

