

Composer and lead saxophonist Håkon Erlandsen arrives at the concert venue and practises before the big event, as another diver approaches in the water.

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Photos by Tomi Mustonen,
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On 29 March 2024, the first-ever concert performed in a cave by technical divers took place in Plura Cave in northern Norway. Technical diving instructor Antonio Chilton has the story.



Plura Cave Concert

A Musical Performance by Technical Divers in Norway



Erlandsen with saxophone underwater, en route to perform at the Plura Cave Concert

Plura Valley is a technical and cave diving resort located in northern Norway, just below the Arctic Circle. It has been run by Ina and Jani Santala Jordbru for the last seven years. They host over 1,000 technical and cave dives every

year. The resort is all-inclusive, in terms of diving, with a full technical diving centre attached to cosy Nordic accommodation in the picturesque Plura Valley, with full catering and, of course, a dive-themed bar.

In 2019, Ina and Jani got married inside Plura Cave, which is located on Ina's family farm called Jordbru. With 69 divers in attendance inside the cave, the whole event was a huge success and was also awarded a **Guinness World Record**. This

laid the foundation for the idea of an event inside the cave, so that more people could experience this kind of amazing venue.

The background
The idea for the concert came after

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Ina and Jani Santala Jordbru (left) happily look out over the crowd (above) during their Guinness World Record wedding ceremony. Some of those attending the wedding in Plura Cave in 2019 dressed up in proper suits under their drysuits (right). Kari Silen on trumpet was the first person ever to play live music inside the Plura Cave Chapel (below).

meeting up with some great musicians and event planners. After the success of the wedding, Ina and Jani realised that it would be challenging but technically possible to hold a concert in the cave. However, it would be very demanding in terms of the resources needed to pull it off.

The regional centre of Bodø is the **European Capital of Culture** for 2024, and the **Cave Music** team organising the concert were lucky enough to get the chance to pitch the project to them. With Bodø2024 on board as the main event partner, as well as local and international sponsors, it suddenly became possible to make this crazy idea of an event a reality.

It took four years, but now the **Plura Cave Concert** was scheduled for 29 March 2024, as a part of the "Leave Nothing but Footprints" concept of

the **Bodø2024** European Capital of Culture programme, and the idea was that the team would hold this epic live concert experience in the heart of the mountain for a select few—and at the same time make one of the most inaccessible places in the world accessible to the masses through a live stream of the concert.

Mission

The Plura Cave Concert was about more than just music; by highlighting niche communities and their cultural impact, the team aimed to foster an appreciation for diverse human experiences, forging connections that transcend boundaries and endure through time. The team wanted to explore and showcase cultural depths and celebrate the dedication of those who ventured into these hidden realms.

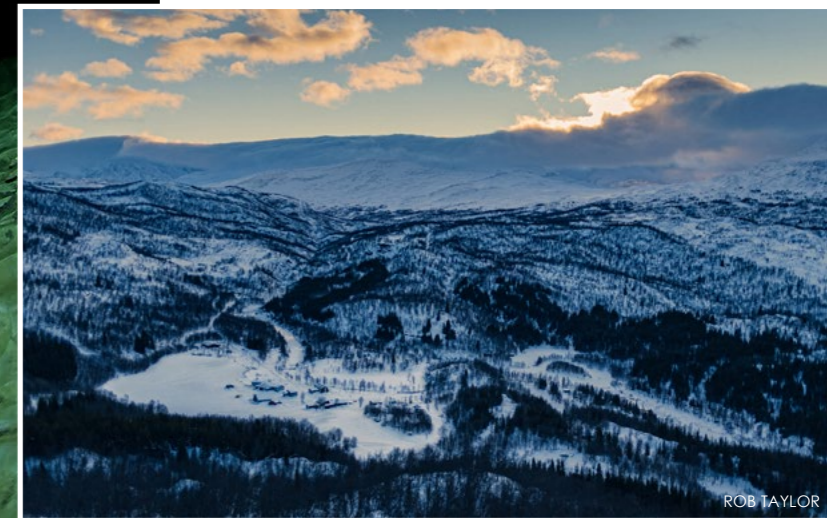
The music for this concert was composed by **Håkon Erlandsen**, an artist who focuses on expressing the emotions of extreme sports and expeditions through the medium of music. Erlandsen was already renowned for his extraordinary concert locations, holding the record for the world's highest concert, performed on the summit of Mount Everest at 8,848 metres above sea level, and the world's coldest concert, held in Antarctica at a whopping -57°C. He has also worked closely with Yamaha, for whom he is an ambassador, to develop a saxophone tough enough to play in the harshest conditions on earth.

Erlandsen, who has been cave diving since 2019, composed the concert music based on his experience of cave diving. He did this by incorporat-





TOMI MUSTONEN



ROB TAYLOR

View of Plura Valley in winter, at the end of the road, with only wilderness surrounding it (above); Northern lights over Plura Valley in Rana (top right)



Jani Santala, chief instructor trainer responsible for safety at Plura Valley (above); Santala diving the S-curve in Plura Cave (top left)

ing the sounds of the cave that spoke to him the most, such as the sound of water droplets and the echo of bubbles. He said his aim with this project was to convey the feeling of cave diving to everyone—in his words, “the simultaneous thrill and calmness you experience.” He said he wanted to share the feeling of something being both beautiful and exciting at the same time, by using art to reach a wider audience and share an experience that had previously only been enjoyed by a few.

Preparations

With just three weeks left until the day of the concert, the preparations were

well underway at Plura. In two weeks' time, 25 amazing volunteers, mostly trusted friends and acquaintances from Norway and Finland, would arrive to assist with all aspects of the preparations. They would be involved in laying cables, rigging equipment for transportation into the cave, and helping to prepare the resort for 45 guests, including preparing food, cleaning and organising accommodations, among other things.

One of the technical obstacles to overcome was how to safely transport the instruments through the cave. To solve this, the Cave Music team reached out to the dive equipment manufacturer Santi, who loved

the idea. The Santi team made custom drysuits for the electric bass guitar and double bass, complete with an inflator and dump valve. The Cave Music team were very grateful to Santi for their advice and guidance in understanding the technical requirements, as well as the hours they put in to make one-of-a-kind drysuits, all within a strict time frame.

Dive planning

The lowest point on the way to the air chamber was 32 mfw, so the ambient pressure was 4.2 atm. This factor added some intricate complexities to the dive planning, as some of the loudspeakers had air spaces inside

them and there were concerns about the risk of implosion during transport. The team considered several solutions, such as transporting the speakers in sealed cases (but the cases were not strong enough to withstand 4 atm); wet transport (but this did not mix well with the electronics); and they considered asking Santi for more drysuits, but they were not sure this would solve the pressure issue.

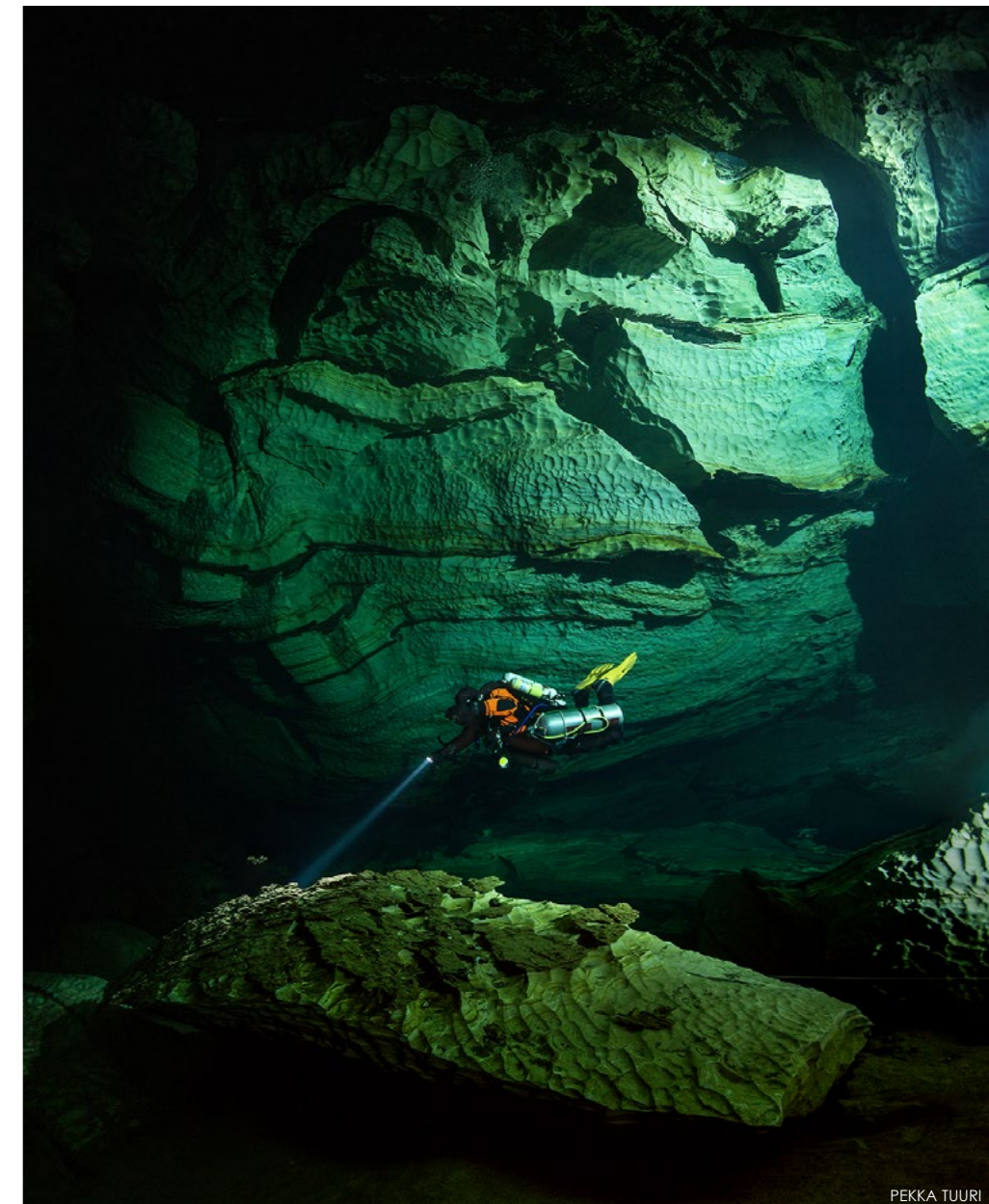
Eventually, they decided that a test was in order. So, they sent their bass player, Davide Bertolini, to the Western Norway University of Applied Sciences. Thanks to the team's friend and contact there, Vegard Sandvik, the university kindly allowed them to

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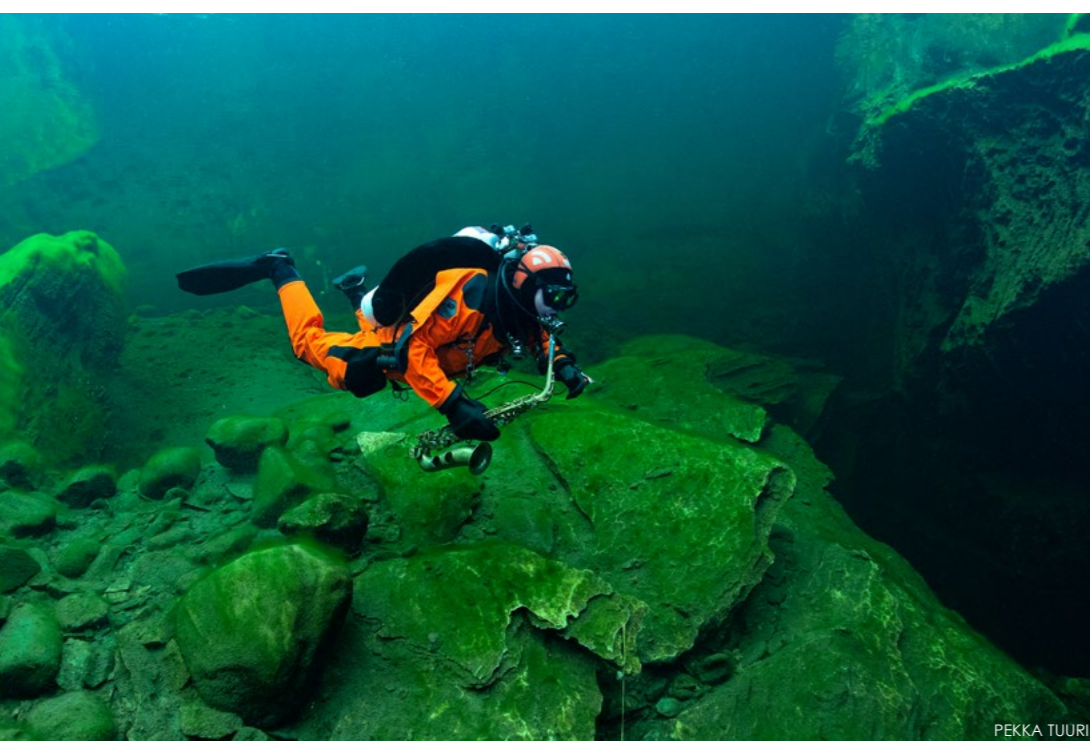
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Erlandsen diving in Plura Cave in northern Norway (above); Erlandsen entering Plura Cave on the way to the Plura Cave Concert (left); Just inside the entrance of Plura Cave, there are massive halls over 10m high and 30m wide (right).

use the hyperbaric chamber to stress test the musician and his instruments. Bertolini confirmed that his basses, a mixer and the loudspeakers would be able to withstand 4.2 atm. In addition to the bass, a brass saxophone was also tested. Given the fresh water in the cave and the metal nature of the saxophone, no special accommodations were needed, except perhaps a towel at the other end of the dive!

Laying the cable

A team of volunteers would be help-

ing to lay more than a kilometre of fibre-optic cable in the cave for the live streaming of the concert. It was a massive task, made even more difficult by the cold water temperature of 4°C, which required thicker gloves and in some cases even mittens—and these made it more difficult to work with the delicate fibre-optic cable. Due to the cold water temperature and open circuit gas constraints, the team would realistically be limited to a maximum of 1.5 to 2 hours per dive. It would therefore take approximately one week for

a team of three divers to install the full length of cable.

For safety reasons, the team decided not to run the fibre-optic cable directly along the mainline, for fear of entanglement of and/or breakage by divers swimming through restrictive areas. Therefore, the cable would be suspended using polystyrene blocks cable-tied to the fibre-optic cable, so that it would float up against the ceiling of the cave and be carefully placed—essentially putting it into a line trap. This would prevent any unwanted contact with concertgoers.



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Power

For the concert, the team would be using Seacraft DPVs, some of which were on loan from the manufacturer. The Seacraft DPVs were critical pieces of equipment for the event. Thanks to their E/O cable, the team would be able to power the entire concert from the scooters, eliminating the need to run another cable through the cave. Everything, from lights, microphones, bass guitars, speakers and mixing boards would be powered by the Seacraft scooters' batteries. There were over 15 different

scooters, totalling over 7kW. This was enough power to run a small house, so for the concert, it would be more than enough for the concert.

A joint effort

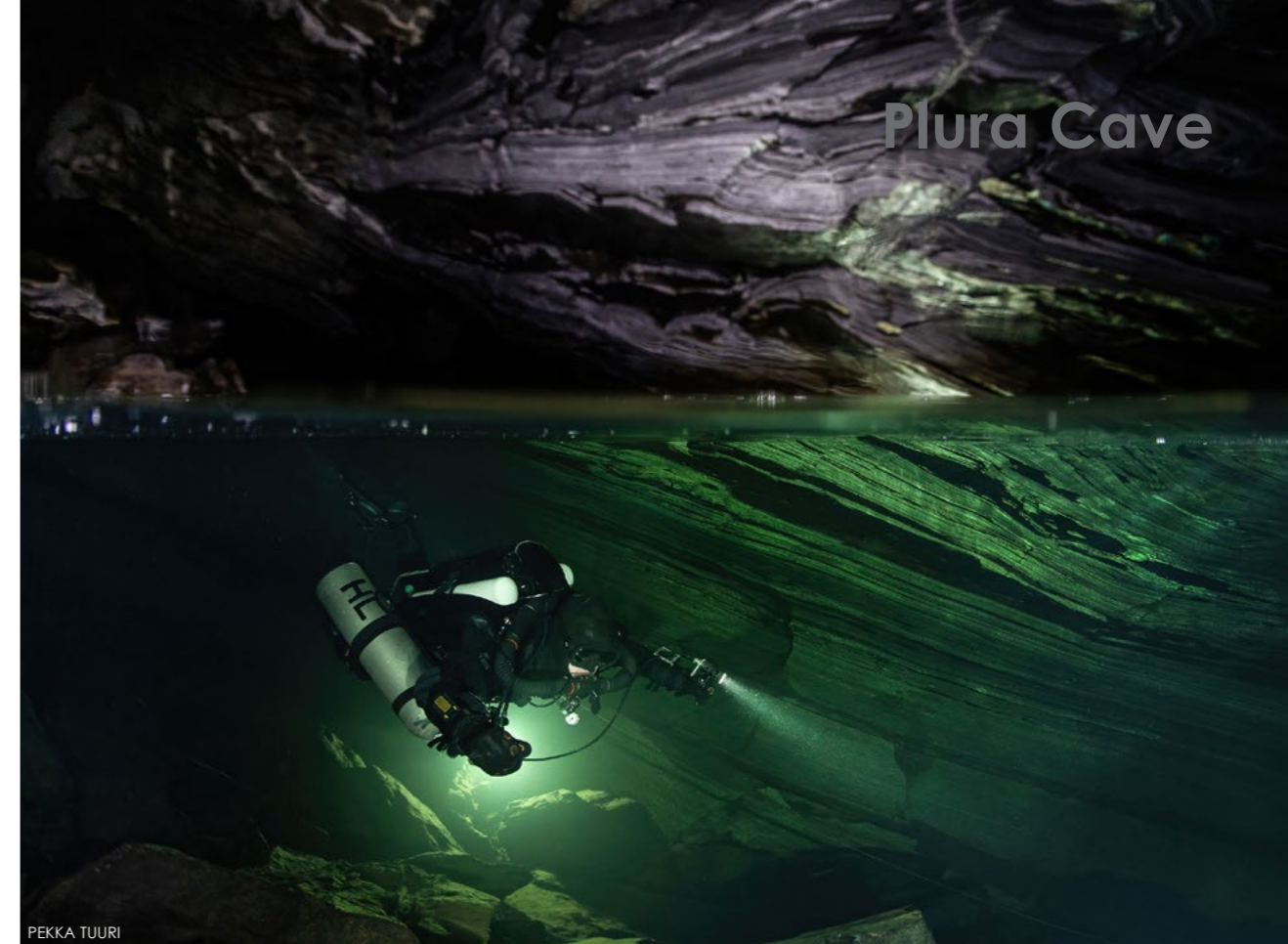
This event would not have been possible without the support of the diving community. The Cave Music team said that it was amazing to see how different brands came together to make it happen.

Since its inception in 2017, Plura Valley has been supported by the dive equipment manufacturer Mares.

For this event, Mares provided safety gear and much needed equipment. One of Mares' main contributions was the regulators for the extra stage tanks, which were staged throughout the cave as a safety measure. XDEEP was another brand that supported the event, providing backplates and harnesses for the volunteers who flew in for the event and were unable to bring all their dive gear.

Live streaming

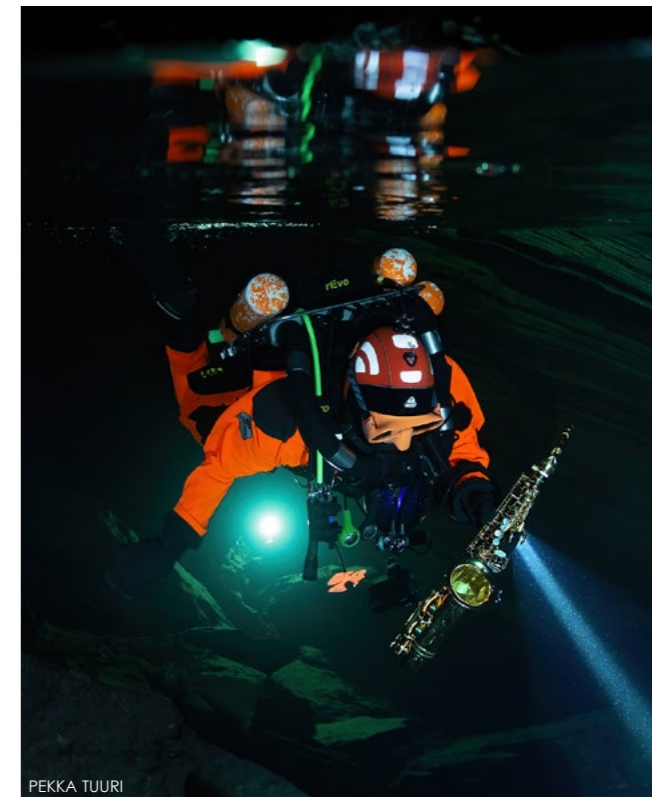
The live stream of the concert started at 1400hrs GMT +1 and lasted for two



Plura Cave

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Erlandsen pauses on his way to the concert venue (left); One of the divers helping out with preparations for the concert enters the Plura Chapel where the concert will be held (above); Erlandsen, with his saxophone, on his way up to the air chamber, 1,500ft inside the mountain (right).



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hours. The concert itself started at 1500hrs local time. The live stream link was made available two days before the event and was hosted on the Cave Music team's **YouTube channel**. Outside the cave, the team set up a large marquee where the concert was streamed on four large screens for those unable to dive to the concert site, such as family members or non-cave qualified members of the diving community.

Inside the cave, the teams of divers arrived at the concert site in a coordinated manner, as directed by the

Cave Music team's command centre. As the concertgoers arrived in the chamber, they were "signed out" of the water to confirm that they had reached the site safely. They then



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Erlandsen arrives at the concert venue and practises before the big event.

took their seats in the cave chamber, which was formed like an amphitheatre with tiered rocks for the audience to sit on.

With a mix of open-circuit and closed-circuit divers in the audience, the Cave Music team also had to consider the doffing and donning of equipment on arrival and departure. This was managed by a team member who coordinated the storage of equipment. Fortunately, there was no shortage of space, as the chamber itself was over 500m long.

Non-alcoholic drinks were served inside the cave during the event. However, the Cave Music team were careful not to serve too much liquid

to the audience members, as although the team at Plura were very talented, transporting a porta-potty into the chamber was beyond their purview! At the end of the concert, the divers returned to the surface for dinner and celebrations to round off an amazing day and achievement. ■

To watch the steamed video, go to: **Cave Concert Stream**. To see a map of the cave, go to: **Map of Plura Cave**. For more information, please visit: **Plura Valley**.

The Cave Music team would like to thank its partners Plura Valley, Bødo2024 European Capital of

Culture, Smelte Digelen, and Äänirasia; dive brands **Mares, Santi, Seacraft, Xdeep**; sponsors Rana Gruber, Strand Shipping, Kunnskapsparken Helgeland, Rana Utvikling, Cargill, Mo i Rana, Sparebankstiftelsen Helgeland, and SpareBank Helgeland; Vegard Sandvik and Western Norway University of Applied Sciences; composer and lead saxophonist Håkon Erlansen, bassist Davide Bertolini and all the musicians, divers, volunteers and audience members who made the concert possible.

Antonio Chilton is a technical diving instructor and full cave diver at Plura Valley. Visit **Instagram @antonio.chilton**.

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