

## THE SUN'S TRACE IN THE ARCTIC ••• A PINHOLE CAMERA'S DIARY

Udo Prinsen

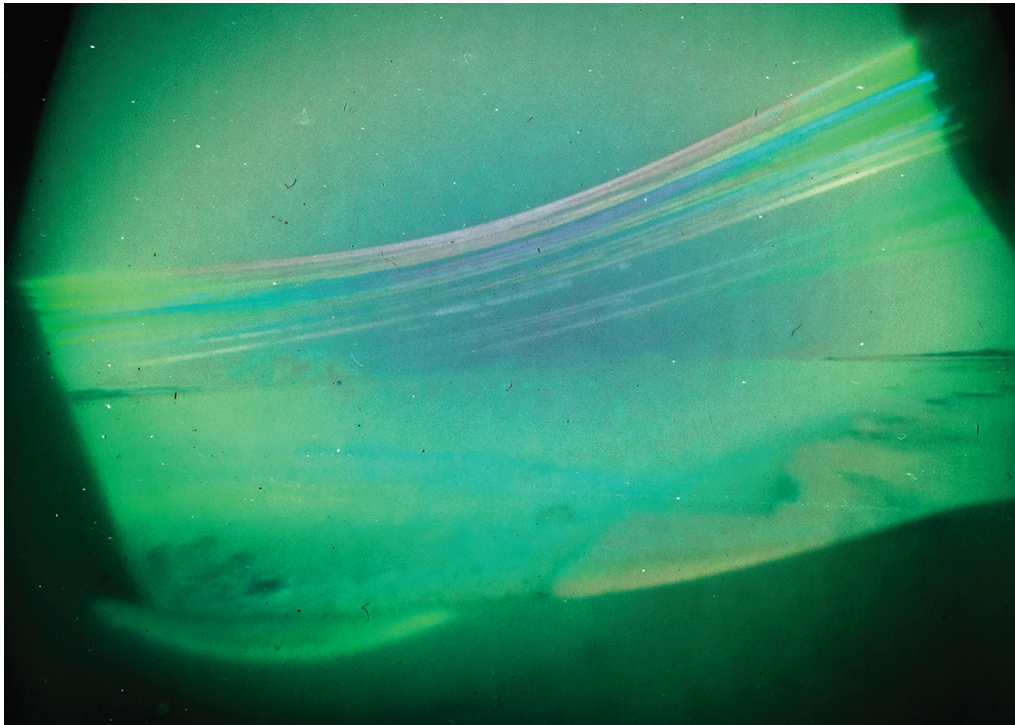


Figure 1. Solar trace on pinhole camera.  
Created at the Polish Polar Station Hornsund in collaboration with Piotr Zagórski.  
Location 77°00'04.8"N 15°32'36.2"E • Exposure time est. 140 days.

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This is the 42nd time I have seen the sun pass my eye since they put me here. It's hard not to lose count. On the other hand, I have a lot of time to keep my memory sharp.

It's warm at the moment, but it's so incredibly bright I can hardly see at all looking straight into the sun. The burning sensation of what she does to the paper inside me is not exactly a pretty feeling. I prefer feeling that warmth on my back later on in the day, or should I say earlier: I don't really know when the day starts here – it's always light. Luckily, there are days when clouds hide the brightness and I can get a little bit of rest, but these moments are rare here in this strange, deserted place.



Figure 2. Created by Maarten Loonen at Ny-Ålesund, Spitsbergen, using movement cameras.



Figure 3. Created by Maarten Loonen at Ny-Ålesund, Spitsbergen, using movement cameras.

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Not that I am lonely. There are more like me in the area – I can see two from here, but they are far away and facing in opposite directions. I wonder what they see behind me. It must be a house, or houses, or some construction at least, because there are people living there. I can hear them daily. Not regular people, it's not a town. Just a few. And the same ones, too. I hear the same voices all the time. It feels very remote and they talk of science.



Figure 4. Created by Maarten Loonen at Ny-Ålesund, Spitsbergen, using movement cameras.



Figure 5. Created by Maarten Loonen at Ny-Ålesund, Spitsbergen, using movement cameras.

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Every now and then I can see activity, too. People in bulky clothing and safety suits are loading equipment and guns into a small boat and take off. I can hear the engine fading away as they drive out of the fjord towards a glacier in the distance. I can't see where they are going, but I pick up conversations when they are nearby.

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I have seen what protection they need the guns for. It was a big white bear. He was far away at first, but quickly came very close. It touched me and I could smell his breath as he tried to get his teeth around my sides. A wet warm tongue and nose tasting and smelling, but quickly losing interest. There is no food inside me for him, that's obvious.

The people have taped me firm to the post I am attached to, and I don't think I have moved from my position at all. That will keep the people happy as they specifically said, "Now, don't move for 5 months!" Then they opened my eye and the light poured in.

When the temperature is rising they often speak of abnormalities. The sound of their voices and the subjects of their conversation are worrying. Apparently, the glacier I can vaguely see in the distance is quickly retreating. It's calving ice a lot more than last year. You can hear the cracking of the ice letting go and the thundering sounds when it hits the water. When this happens, jokes circulate that the Dutch will need higher dikes again. I believe that actually concerns my home country. Everything happening here is connected to the entire globe they discuss. And everything happening in the world is of great effect, measurable here in the far, cold north. Well, where it is supposed to be cold – yesterday it was 17 degrees Celsius, I heard. It felt like an oven to me.



Figure 6. Created by Maarten Loonen at Ny-Ålesund, Spitsbergen, using movement cameras.



Figure 7. Created by Maarten Loonen at Ny-Ålesund, Spitsbergen, using movement cameras.

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I have had other company. The geese and the reindeer are cool and quietly waggle about their business, grazing, but the Arctic terns are a different story. In the last few weeks the young have hatched and need to be fed. I am surrounded by the constant screams of parents flying to find little fish. People are trying to count their eggs and young. Parent birds get very frantic and start pecking the heads and hats of the intruders with their sharp beaks. The people arm themselves with sticks and wave ski poles in the air to deter the terns. The high pitch and clamour of the terns is incredible.



Figure 8. Created by Maarten Loonen at Ny-Ålesund, Spitsbergen, using movement cameras.

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The young are quickly getting bigger and a few have used me as an outpost, jostling on top of me for the best position, and the one who wins sits there all day long waiting for the fish to arrive. As a result, I am getting covered with Arctic guano and my eye is often not giving me the sharp vision it is supposed to. Luckily, every now and then one of the humans passes by and wipes my face. That helps, but the smell is omnipresent. The young are getting fatter and are flapping their wings more, so I expect they will leave soon. About time.

A helicopter landed right in front of me, jumpstarting a wonderful cascade of strange entertainment. People ran towards the machine, shaking hands happily, looking inside and asking for their stuff. Boxes and crates were offloaded and other boxes were placed back into the hatch. Then a surprising person stepped from the helicopter. A priest in purple robes. The whole crowd followed him to a place further down the road, out of my sight, and they held a church meeting. Possibly the only church meeting where rifles are welcome.

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Something sad happened the other day. Two people left and did not report back for a while. The people at the station were very worried and set off in a search party. Unfortunately, the two had been in a terrible avalanche accident and did not survive.



Figure 9. Created by Maarten Loonen at Ny-Ålesund, Spitsbergen, using movement cameras.

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I hear footsteps. Someone is coming closer: He's on his knees in front of me – this moment is for me. I can sense it. He's holding black tape. I know what that means. Total black now. That will be the end of my time out here enjoying this landscape. It's been a long while and I have been bored, but knowing I will be leaving makes me emotional. At least I know I will be going places again.

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It feels like I am being carried around the area. The others must have been taken away, too. I can feel them touching me as we swing around in a bag. The sounds of the outside fade at the closing of a door and it definitely feels like we are indoors now. I hear people talking – whether we are shipped right away or do we go with the container on the ship? We are stuffed together into the same small box we came in. The lid is being closed, sounds are muffled. Too bad. All these days out in the open, now back in darkness.

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We've been in this box for some time now. Every now and then we move, but I have no idea where to. It seems like we are travelling all over the place. I have heard English, Norwegian, Polish and now Icelandic around me. I wonder what is happening. Another time, this part of the journey did not take more than a week or so, but this time it has been two months and we are just lying here in what I understand to be Reykjavik. Something has gone wrong.



Figure 10. Personal images by Udo Prinsen.

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We're traveling again! I hear Dutch voices now. This means I am getting closer to my home place. I am almost back. There's a familiar voice. I remember him from when we were shipped out. He seems incredibly happy to see us.

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I end up in a studio full of orange light. We're being inspected. Soon the tape holding me together will be removed and the paper inside taken from me. Too bad I will never see the resulting image on the paper myself, but that's the nature of the job. I have seen it long enough to remember:

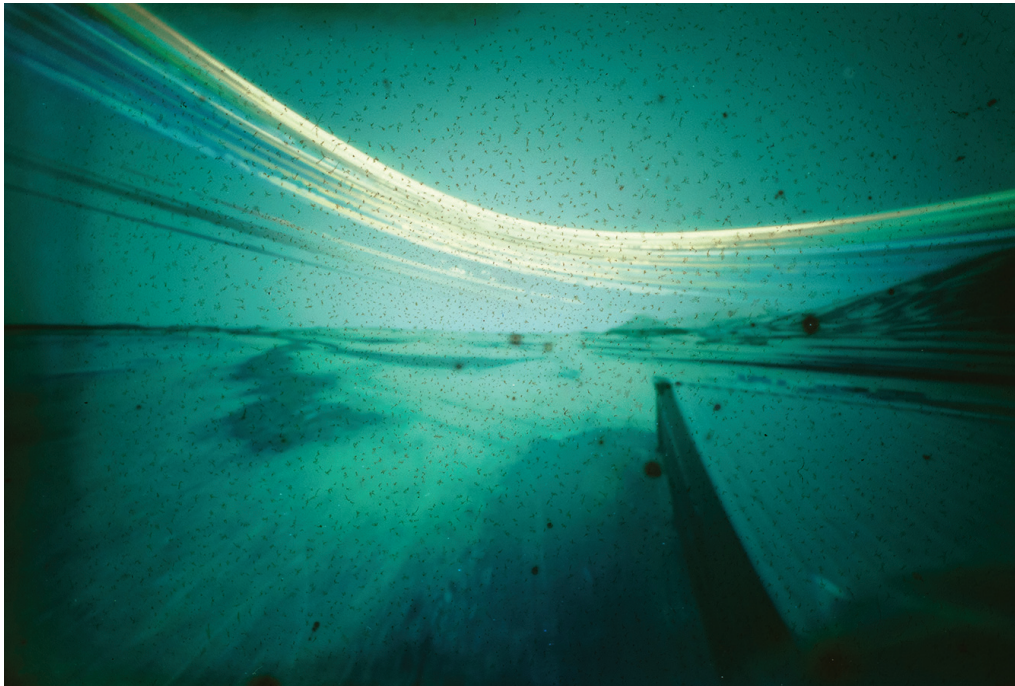


Figure 11. Solar trace on pinhole camera.  
Created at the Polish Polar Station Hornsund in collaboration with Piotr Zagórski.  
Location 77°00'04.8"N 15°32'36.2"E • Exposure time est. 140 days.

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My back is refilled with new paper and closed. I can hear a pen writing on my back before another long journey begins. I wonder what location will be next.

Here we go.

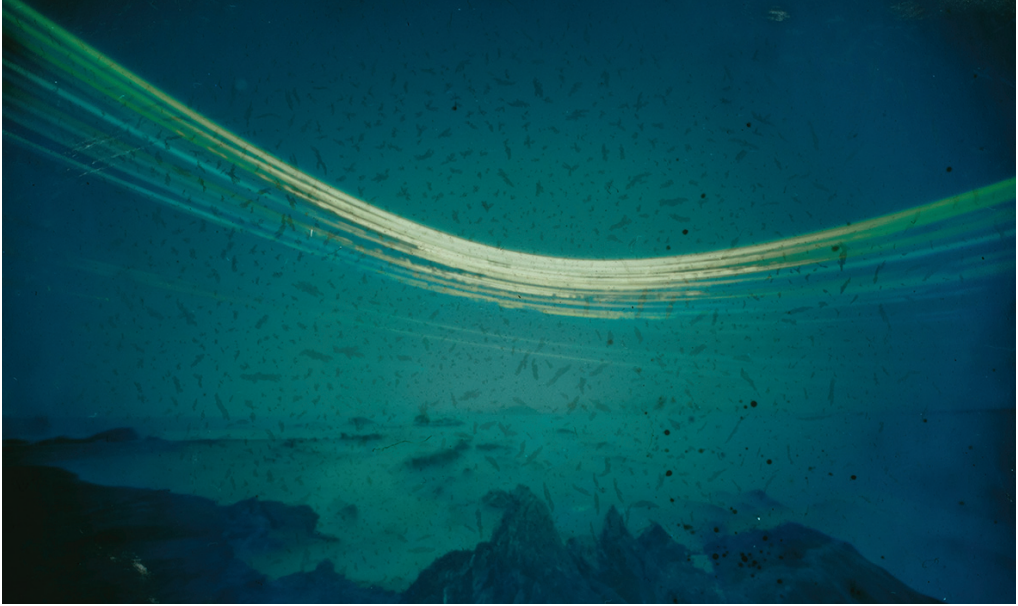


Figure 12. Solar trace on pinhole camera.  
 Created at the Polish Polar Station Hornsund in collaboration with Piotr Zagórski.  
 Location 77°00'04.8"N 15°32'36.2"E • Exposure time est. 140 days.

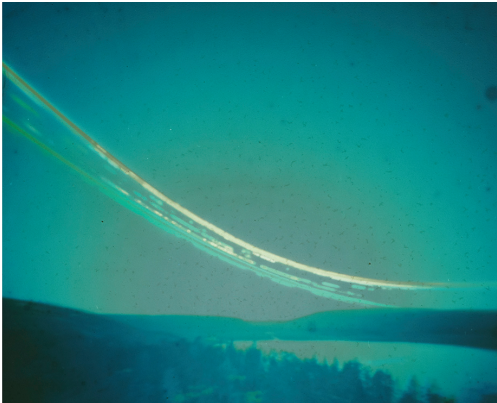


Figure 13. Solar trace on pinhole camera.  
 Created at Kevo SubArctic Station in collaboration with  
 Otso Suominen and Ilkka Syvänpää.  
 Location 69°45'22.5"N 27°00'22.4"E  
 • Exposure time 48 days.



Figure 14. Solar trace on pinhole camera.  
 Created at RIF Station (the Nest), Raufarhöfn, Iceland, in  
 collaboration with Hrónn Guðmundsdóttir, Jónína Sigríður,  
 Pétur Magnússon, Guðmundur Örn Benediktsson.  
 Location 66°27'20.2"N 15°57'03.9"W  
 • Exposure time 126 days.



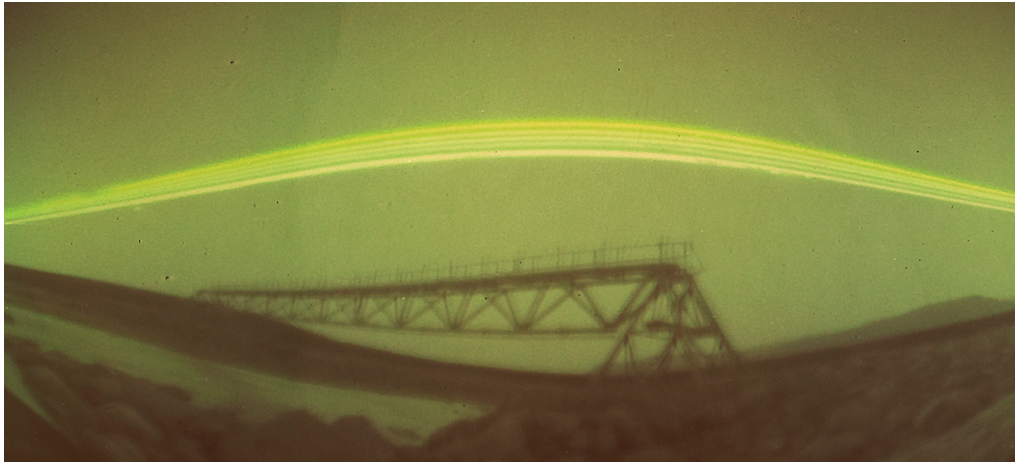


Figure 15. Solar trace on pinhole camera.  
Created at Zackenberg Station, Greenland, in collaboration with Lisa Bröder and Julien Fouche.  
Location  $74^{\circ}28'32.3''\text{N}$   $20^{\circ}34'04.6''\text{W}$  • Exposure time 13 days.

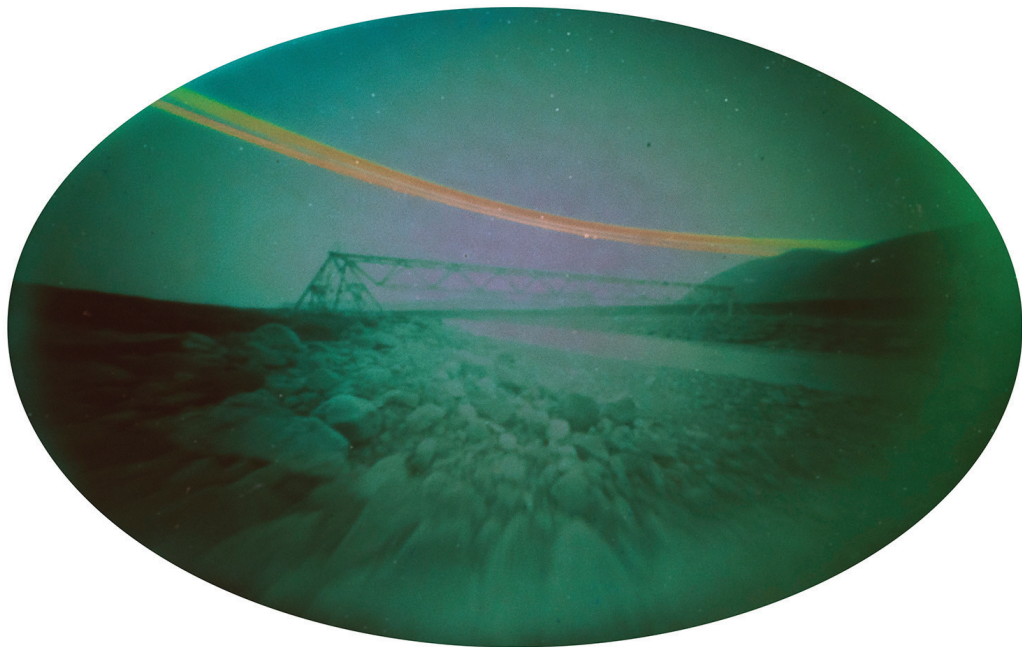


Figure 16. Solar trace on pinhole camera.  
Created at Zackenberg Station, Greenland, in collaboration with Lisa Bröder and Julien Fouche.  
Location  $74^{\circ}28'32.3''\text{N}$   $20^{\circ}34'04.6''\text{W}$  • Exposure time 13 days.

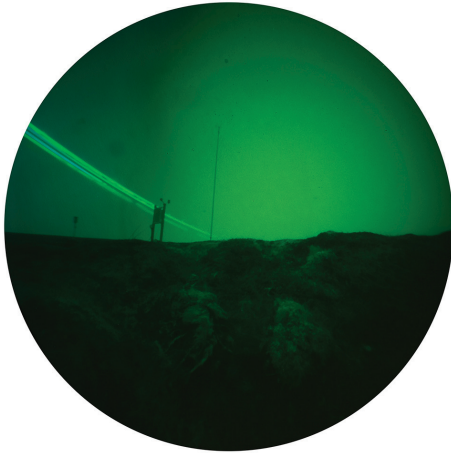


Figure 17. Solar trace on pinhole camera.  
 Created at RIF Weather Station, Raufarhöfn, Iceland, in  
 collaboration with Hrönn Guðmundsdóttir, Jónína Sigríður,  
 Pétur Magnússon, Guðmundur Örn Benediktsson.  
 Location 66°30'39.7"N 16°08'27.8"W  
 • Exposure time 16 days.

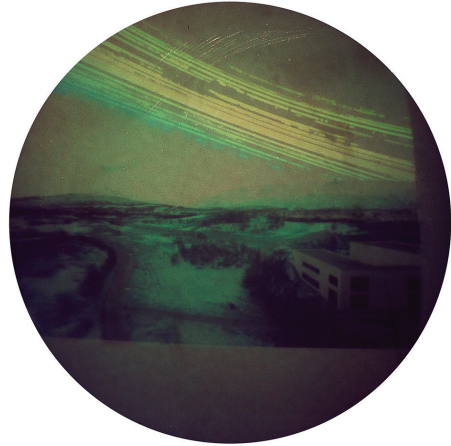


Figure 18. Solar trace on pinhole camera.  
 Created at the IASC Head Office, Akureyri, Iceland, in  
 collaboration with Allan Pope and Ingeborg Klarenberg  
 Location 65°41'05.5"N 18°07'13.4"W  
 • Exposure time 97 days.



Figure 19. Solar trace on pinhole camera.  
 Created at the Finnish Meteorological Institute, Sodankylä, Finland in collaboration with  
 Leena Leppänen, Timo Ryypö and Timo Sukuvaara.  
 Location 67°22'01.2"N 26°38'09.6"E • Exposure time 88 days.



Figure 20. Solar trace on pinhole camera.  
 Created at Cherskii Station, Siberia, Russia, in collaboration with Kirsi Kesskitalo and Nikita Zimov.  
 Location 68°44'23.4"N 161°24'01.9"E • Exposure time 20 hours.

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In 2019 visual artist Udo Prinsen directed a global photography project in collaboration with more than 25 Arctic scientists. Together they created images in which the architecture of Arctic research stations is combined with the sun's track through the sky. Some cameras had an exposure time of five months, capturing the entire summer of 2019 in a single image.

In writing this short story, Udo used the experience of working with the Polish Arctic Station in the Hornsund region of Spitsbergen. He would like to thank Piotr Zagórski, Mateusz Piotrowski, Kacper Wojtysiak and their team for their assistance on and off location.

The fixed cameras used in this location were in place far longer than any others used by the Polish Arctic Station and were on location for the entire summer season of 2019. It took the camera box a long time to make the journey back to Poland – and then it was mistakenly sent back to the Arctic and ended up in a Reykjavik postal depot over Christmas and New Year.

The author's Arctic experience and the stories of other scientists on other locations inspired this short prose piece. The accompanying photographs were not all taken at a single location. All the images created are filed under the project name, Touch Base, Arctic Solargraphy, and will eventually be shared on the artist's website at [www.udoprinsen.com/touch-base](http://www.udoprinsen.com/touch-base). All locations, projects and scientists involved are acknowledged there as well.

The project has also led to the creation of a photo object, "Save Our Souls," an S.O.S. morse code signal consisting of nine long-exposure images created at Arctic field research stations around the world.



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Udo Prinsen is a director and visual artist with a background in traditional drawn animation film. In addition, he has developed himself as a photographer using long exposure techniques, and as a conceptual artist. Udo works across disciplines with like minded collaborators with a focus on nature, culture, science and music.

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### Contact & links

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### Acknowledgement

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'Touch Base, arctic solargraphy' is a photography project connecting arctic research stations world wide.

----- Participating scientists, artists & locations -----

 Iceland - RIF Field Station Hrönn Guðmundsdóttir, Jónína Sigríður, Guðmundur Örn Benediktsson	 Iceland - Skalaness Field Station Ólafur Örn Pétursson, Jonatan Spejlborg	 Russia - Siberia Northeast Science Station Cherskiy Kirsi Kessitalo, Nikita Zimov	 Spitsbergen Netherlands Arctic Station Maarten Loonen
 Finland - Finnish Meteorological Institute FMI Anna Kontu, Leena Leppänen, Timo Ryyppö, Timo Sukuvaara	 Russia - Yert - Kasjabasavo Spasskaya Pad Forest Station Sander Veraverbeke	 USA - Alaska - Toolik Field Station Syndonia Bret-Harte, Jeb Timm, Tupper Becker, Faustine Bernadac, Brett Biebuyck, Joseph Franich	 Greenland - Ilulissat Esther Kokmeijer, André Speet
 Spitsbergen Polish Polar Station Hornsund Piotr Zagórski, Mateusz Piotrowski, Kacper Wojcysiak	 Kevo Research Station Finland - Kevo Subarctic Research Institute Otso Suominen, Ilkka Syvänperä	 USA - Iceland National Snow and Ice Data Centre Allen Pope	 Iceland - Akureyri area Ingeborg Klarenberg
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We are dedicating this project to Anna Górska & Michał Sawicki, who passed away in 2019 during fieldwork in the Hornsund area in Spitsbergen.