Svalbard in Polish Documentaries (1930s-2020s): A Conceptualized Inventory

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Abstract: For the first time ever, over fifty Polish documentaries about Svalbard, filmed during the ninety years of Polish presence on the archipelago, have been looked at and categorized. Four distinct periods of such documentary-making have been identified and characterized: the heroic (in the 1930s), the exotic (in the 1950s-60s), the routine (in the 1970-90s) and the ethical (from the 1990s until present). Common and specific trends for these periods have been detected. An analysis of selected films exemplifying each period has been made. Comparisons with other nations' films about Svalbard (predominantly Russian and Norwegian) have been drawn. Possible future directions and topics for the Polish filmmaking about Svalbard have been considered.

Keywords: Svalbard, Poland, documentary filmmaking, science documentaries, nature documentaries, Arctic cinemas

## Introduction

Scientists need media to explain to the broad audience the purpose, meaning and possible impact of scientific research, in order to secure public awareness, support and funding. The role of popular science documentaries in this process has always been significant, given that the documentary film in general 'seeks to portray the world [...] as a means to impart new knowledge and information'. Now that the visual media are gaining an upper hand over the print ones, film has become more important than ever before. Films about polar research are especially relevant in this respect, as they deal with hard-to-reach locations and investment-intensive science that benefit from (and to some extent depend on) a wider understanding and appreciation.

It would be helpful to attempt measuring the influence of cinematic representations of polar research, in a particular country, on research funders, as well as on society at large. Such an attempt would naturally take into consideration the number and content of film reviews, the viewing figures and results of specially designed opinion polls, when and if

available. However, before doing this it is necessary first to try and list all the documentaries that are known to have been made on the subject, as well as watch, analyze and classify those of them that are currently accessible in one format or another.

We have chosen Poland as a case study to do exactly this because Poland is a non-polar country that has achieved a remarkable success in polar research over the past century or so. Poland's polar achievements have been showcased and amplified for the benefit of the general public partly thanks to memorable documentaries about Polish polar research, historically linked, first and foremost, to Svalbard, a High North archipelago under the Norwegian jurisdiction.<sup>2</sup> Poland has been setting up exploration bases and sending research expeditions there, on and off, since the 1930s.

Furthermore, a special relevance of films for the Polish polar researchers' choice of profession has been recently demonstrated by Professor Jan Marcin Węsławski. His 2020 article shows that in 2018, over 80 per cent of Polish polar researchers with a PhD degree, engaged full time in the field of environmental and earth sciences and aged between thirty and sixty-five, have answered 'movies' to the question of what inspired them to undertake polar research in the first place.<sup>3</sup>

Needless to say, not all such 'movies' are necessarily Polish in origin or documentary by genre. Therefore, our task, in addition to compiling an analytical inventory of Polish documentaries about Svalbard and about Polish scientists on Svalbard, includes placing, to the best of our knowledge and ability, the inventorized films in a wider context of other countries' films about polar research(ers), especially films with a focus on Svalbard, both documentary and feature ones.

Apart from inventorization and contextualization, a longitudinal conceptualization has been carried out of most important changes in subject and style that Polish documentaries about Svalbard have exhibited in ninety years or so of their existence. Space constraints preclude us from concentrating on more than just one or two, maximum three films, particularly representative of several specific major shifts in the filmmakers' approach to their material. We have identified four such shifts over a ninety-year period, from the mid-1930s up until present. Curiously enough, these shifts do not appear to cancel each other out. Some recent films seem to contain elements typical of much earlier Svalbard-related documentaries, while sharing their time period with films that display a somewhat more modern attitude. Tentative recommendations concerning the future of Polish documentary filmmaking on and about Svalbard will also be made.

It has to be stressed that Polish films about Svalbard vary in length and quality. They are mostly notable for leaving a substantial visual record of explorers at work, rather than for an innovative approach to documentary filmmaking. This does not make the films in question less remarkable. The lasting value of their composite body of work consists primarily in chronicling Polish explorations on Svalbard as they were evolving, by focusing on polar logistics, research priorities and human impact on nature. The fact that many films under discussion have rarely been seen outside Poland has necessitated the descriptive angle in our article.

## Methods

Even though most films mentioned in this article have been screened, either in cinemas or on television or streaming platforms, it is not always easy to retrieve them as and when necessary. Therefore, a considerable amount of archival search, especially for films made before 1989, in repositories such as Wytwórnia Filmów Oświatowych (WFO) in Łódz and the Archive of Telewizja Polska (TVP) in Warsaw, has been imperative. As for post-1989 films, on a number of occasions, getting in touch with filmmakers personally has proved to be instrumental in obtaining access to both a particular film and a background information on how and why the film was shot. Communication with filmmakers has been complemented by correspondence with some of the scientists who have been avid viewers of, as well as participants in, science documentaries (not only those about Svalbard). Thus, a selection of informed opinions from both sides of the camera has been secured.<sup>4</sup> Where possible, these opinions have been supplemented by publications in the media, which necessitated trailing through news portals and online newspaper databases. Selected films have been analyzed in depth in a traditional way, determining how various means of expression translate into a specific message. Overall, our research has been undertaken in the spirit of consilience, advocating a kind of integrated body of knowledge, jointly formed by the sciences, the humanities and the arts, and involving, in particular, a 'full employment of [...] art and fiction as the best means for developing and expressing science'.<sup>5</sup>

## Films about Svalbard in the context of Arctic cinemas and science documentaries

Whichever country the films about Svalbard have been credited to, the majority of such films have been made in the documentary genre, and Poland is no exception. The

logistics and costs of bringing an extended cast and crew for a feature film to the treacherous conditions of the extreme North have proved prohibitive, authenticity notwithstanding. It happened occasionally that Svalbard stood in for Greenland in feature films such as *Na bialym szlaku* (On the White Trail, 1962, Poland, dir. Andrzej Wróbel and Jarosław Brzozowski)<sup>6</sup> and *Kjærlighetens kjøtere* (Zero Kelvin, 1995, Norway, dir. Hans Petter Moland).<sup>7</sup> Yet the situation when a non-Svalbard locality has been used in a feature to epitomize Svalbard occurs more often. Suffice it to mention *Krasnaia palatka / The Red Tent* (1969, USSR/Italy, dir. Mikhail Kalatozov) and *Archipelag* (Archipelago. 2021, Russia, dir. Aleksei Tel'nov and Mikhail Malakhov Jr), in which the Gulf of Finland is meant to represent Svalbard fjords.<sup>8</sup> *Orion's Belt* (1985, Norway, dir. Ola Solum and Tristan de Vere Cole) is that rare beast in which the thrill of the fictional plot and the actual Svalbard visuals complement each other congenially to produce a breathtaking effect. More often than not, however, purely factual accounts of going to and/or being on Svalbard look exciting enough by themselves, without a particular need for an attention-grabbing fictitious boost. It therefore makes perfect sense to concentrate primarily on documentaries.

Documentaries about Svalbard belong to the category of so-called "Arctic cinemas", i.e. 'films portraying or documenting distant Arctic people and geographies'<sup>9</sup>, initially as a 'blank canvas onto which imagery of a [...] supralocational wondrous sublime can be conjured', 'otherworldly and at the end of the earth', 'the seedbed of life [...] and [...] the place of destruction' – but more recently also as a region increasingly 'endangered, volatile and in need of protection'. An international nature of the Arctic endeavour (on Svalbard legally enshrined by the Svalbard Treaty of 1920, in force since 1925) has resulted in many common themes running through different national versions of Arctic cinemas, whether focusing specifically on Svalbard or not. Among such common themes, the attractive yet forbidding landscapes, the vagaries of polar exploration, the variety of Arctic wildlife and the lifestyle of the indigenes (if any) feature quite prominently.

In Svalbard's case, the earliest documentary on record about the archipelago, *Au pays du soleil de minuit* (1909, France, dir. Jean Nédelec), depicted – judging by its catalogue entry<sup>11</sup> – such phenomena as 'a glacier bathing by the sea' and 'the midnight sun', while using only 140 metres of film. Some twenty years later, a much longer documentary, *Podvig vo l'dakh* (A Feat on the Ice) by the Soviet directors Sergei and Georgii Vasil'ev, reminded the viewer that reaching spectacular Arctic sites was strewn with perils, as the film detailed the search for and rescue of Umberto Nobile's 1928 *Italia* expedition to the North Pole, which crashed north of Svalbard. As for the wildlife, the same documentary portrays a polar

bear killed by a rifle shot from on board a Soviet ship (polar bears reportedly outnumber Svalbard's human population even today).

However, the last of the above-named topics, i.e. the indigenes' customs and mores, is inapplicable to Svalbard, which has never had an indigenous population. Instead, films devoted to Svalbard tend to give more room to coal mining, adventure tourism and polar research, in keeping with what has defined Svalbard since the late nineteenth century. A fine early example of Norwegian coal mining on Svalbard-related screen presents tracking shots and panoramic views of the partly abandoned and partly active mining equipment at Tunheim and Austervåg on Bjørnøya, as well as in and around Longyearbyen on the Spitsbergen island, in an unattributed 1930 Norwegian documentary from the vaults of Nasjonalbiblioteket in Oslo. A fairly recent specimen illustrating aspects of Svalbard adventure tourism is the 2002 Czech documentary Špicberky – Za půlnočním sluncem (Svalbard: To See the Midnight Sun), made by Tomáš Sniegoň for the Cestománie television programme and including scenes of dog sledding and reindeer hunting. However, of the subject matters mentioned in this paragraph, only the last one, polar research, is fully relevant to Polish films about Svalbard, because it is precisely research that Polish activities and presence on the archipelago have mostly been associated with.

Therefore, Polish documentaries about Svalbard are to all intents and purposes a subset of science documentaries and should be analysed in the context of the science documentary tradition. Science documentary (a term encompassing nature and natural history documentaries, too) is a 'film that portrays science to the public in a way that is engaging, entertaining and educational'.<sup>14</sup>

Christopher Michael Kustusch identifies three principal types of science documentaries as they had crystallized by the early 2000s: 1) 'animals in Eden', i.e. wildlife scenes narrated without much onscreen human presence and exemplified by the BBC's *Blue Planet* series (2001 and 2017), presented by Sir David Attenborough; 2) an 'illustrated lecture', such as *An Inconvenient Truth* about global warming, by Al Gore and Davis Guggenheim (USA, 2006); and 3) 'scientist as explorer', the format made popular by *Le Monde du silence* (1956, France, dir. Jacques-Yves Cousteau and Louis Malle). <sup>15</sup>

This matrix, with its chief constituent parts overlapping and cross-pollinating each other from time to time, can be usefully supplemented by a classification of science documentaries that is steeped in national cinematic traditions. In a personal communication to the authors of the present article, Professor Węsławski names the following four leading national schools of science documentary making:

- 1) British (developed to perfection by the BBC and David Attenborough): a competent presenter makes comments to the unique camerawork of excellent quality, achieved by recourse to the latest technology;
- 2) French (e.g. Jacques Cluzaud and Jacques Perrin, Yann Arthus-Bertrand): no presenter, minimal commentary, excellent photography relying first and foremost on the beauty of the shot, plenty of work and great technique involved in the films' accomplishment;
- 3) entertaining Australian and American productions [e.g. *The Crocodile Hunter*, five seasons, 1996-2007, the Animal Planet channel]: based on a distinct character and direct contact with animals/nature; catching snakes or crocodiles and swimming among walruses or seals; often low-budget films with a minimal didactic value; and 4) classical often German (some of which were prepared for the school curriculum at the request of the Ministry of Education) scientific narratives: more like recorded lectures than a nature film; usually very thorough in terms of content, with animated inserts, infographics and explanations of complex phenomena; mostly not intended for a wider audience and often sponsored by scientific programmes or research institutes.

How do Polish documentaries about Svalbard fit in? An answer to this question can be obtained if we survey the totality of such documentaries currently available, from the first extant Polish film about Polish explorers on Svalbard, *Do ziemi Torella* (To Torell Land, 1936, dir. Witold Bernawski), to the present day – some fifty items overall, most of them documentary shorts, made to account for the diverse activities of Polish (and other) scientists on the archipelago, with the research station in Hornsund as a principal (but not exclusive) focal centre. A rough preliminary periodization of these films reveals four chronological clusters: 1) the 1930s (heroic, exemplified by *Do ziemi Torella*); 2) the 1950s-70s (exotic, best represented by Włodzimierz Puchalski's *Wśród gór i dolin Arktyki* (Among the Mountains and Valleys of the Arctic, 1958); 3) the 1970s-90s (routine, typified by Ryszard Wyrzykowski's Svalbard trilogy); and 4) the 1990s-2010s (ethical, marked in particular by the input from women directors, such as Iwona Bartólewska, Katarzyna Dąbkowska, Dorota Adamkiewicz and Joanna Łęska).

Films of the 1930s: Do ziemi Torella (To Torell Land) and the heroic period

The heroism of this section is largely about the cinematic mode of representation, as Poland, having regained independence in 1918, turned its attention to the polar regions when the heroic age of polar exploration had already been over. Still, even at this stage, the Polish involvement in things polar was seen by the Polish state and society as a shortcut to international respectability. The exploration itself was usually carried out by a handful of enthusiasts with a background in skiing and mountaineering. The government funding for their expeditions was often complemented by private and public donations. <sup>16</sup>

Poland had acceded to the Svalbard Treaty on 2 September 1931. Less than a year later the country already sent its first ever dedicated polar research team to Svalbard (more precisely, to Bjørnøya, aka Bear Island) to set up a meteorological station there, as part of the Second International Polar Year (or IPY, 1932-33). This IPY focused on collecting data in the polar regions, to do with meteorology, magnetism and atmospheric science, in order to try and improve weather forecasts and the safety of sea and air travel. Over forty countries joined in and some thirty observation stations were established across the Arctic.

Of the five-strong Polish team, initially led by the then head of the Polish Meteorological Institute Jean Lugeon (1898-1976, a Swiss national), three individuals stayed for the full thirteen-month duration of the assignment that began in August 1932. Two of them – Czesław Centkiewicz (1904-96) and Stanisław Siedlecki (1912-2002), tasked with the radiometeorological and meteorological observations respectively – later became synonymous with the pioneering Polish undertakings in the Arctic and will be mentioned repeatedly in this article. Both wrote books about their Bjørnøya experiences<sup>17</sup> but apparently left no film footage in the enterprise's immediate wake.

This omission was remedied during the second Polish Arctic venture, the summer expedition of 1934 to map the central part of Torell Land in the southeastern part of the Spitsbergen island, between Van Keulen fjord and Hornsund. The topographical mission (chiefly carried out by, and under the supervision of, two officers from the Polish Military Geographical Institute) was complemented by geological, glaciological, botanical, zoological and meteorological assignments. The expedition team, led by the mechanical engineer Stefan Bernadzikiewicz (1902-1939), consisted of seven men (Siedlecki included), most of whom had prior mountaineering experience. The radiotelegraph operator Witold Biernawski (1898-1957) was put in charge of filming the expedition to promote its achievements in both Poland and abroad.<sup>18</sup>

It was expected that the film would stimulate in Polish society a 'desire to learn about issues that other nations have already been keenly interested in' and serve as a 'proof of national vigor, putting Poland on an equal footing with the already established researchers of Svalbard – the Norwegians, the Germans and the Brits'. About 3000 metres of film had been shot, some 900 of which was later edited, with the help of the Warsaw-based company Panta Film, under the artistic supervision of the prominent Polish author Ferdynand Goetel (1890-1960), into a documentary called *Do ziemi Torella*. It was released in 1936. According to two unsigned articles, a second documentary from Biernawski's footage was made, too, under the name of *Ku wiecznym lodom Spitsbergenu* (Towards Svalbard's Eternal Ice). Alas, we have not managed to find any trace of it. Luckily, the first nine minutes and twenty-two seconds of *Do ziemi Torella* have survived at the WFO and have been rediscovered there by a co-author of the present article, Jacek Szymala, with the help of the WFO staff.

What remains of *Do ziemi Torella*, begins – after the opening credits against the background of stylized images of snowy peaks, Northern lights, a sailboat, a mountaineer, two skiers and four birds – with a revolving globe that stops to reveal to the viewer Svalbard's and Torell Land's exact geographical location. This pictorial introduction is followed by a verbal one, by Professor Antoni Dobrowolski (1872-1954), a participant in the Belgian Antarctic expedition of 1897-99, a sometime director of the Polish Meteorological Institute, an expert on the crystallography of ice and snow and head of the organizing committee of the 1934 Polish expedition to Spitsbergen. In his almost two-minute-long preamble, delivered next to a wall-mounted map of Svalbard, Dobrowolski calls the 1932 establishment of the Polish meteorological station on Bjørnøya and the 1934 exploratory visit to Torell Land historic events, thanks to which 'Poland stood for the first time among civilized states fighting together against a dangerous element – the great mystery of the North' (*Do ziemi Torella*, 02:39-2:53).

Dobrowolski's mini-lecture is followed by short video portraits of expedition members, beginning with Bernadzikiewicz and continuing with the triangulator Major Sylweriusz Zagrajski (1892-1940), the photogrammetry specialist Captain Antoni Zawadzki (1896-1974) and the geologist Stefan Zbigniew Różycki (1906-88). The portrait sequence (taking up a minute and a half in total) is concluded with Siedlecki and Biernawski, with the photographer and radiotelegraph operator Henryk Mogilnicki (1906-99) appearing between the two. On the one hand, the visual style of their introduction, one by one, is reminiscent of a presentation of *dramatis personae* typical of a silent feature film. On the other, such an

introduction may have been partially inspired by the more recent *All Quiet on the Western Front* (an Oscar-winning adaptation of Erich Maria Remarque's novel by Lewis Milestone, USA, 1930), which, one after another, acquaints the audience with a company of future war heroes.

The centrepiece of the extant footage in *Do ziemi Torella* (almost three minutes altogether) is devoted to the expedition's journey from Tromsø to Van Keulen fjord on Spitsbergen, via Bjørnøya, on board the schooner Husvika, while successfully negotiating sizeable icebergs and ice floes. Afterwards, unloading the expedition's equipment is shown (three tons overall), to set up basecamp at the foot of Berzeliustinden, the highest peak in the neighbourhood. No sooner than the landing is completed, a Polish and a Norwegian flag are erected near the landing site, the former notably being larger in size and flying higher than the latter (07:13-07:29, see Fig. 1). According to *Kurjer Warszawski* of 23 December 1935, 'this was the first time when a flag with Polish national colours fluttered in the polar winds of Spitsbergen'.<sup>23</sup>



Fig. 1. Do ziemi Torella (1936): Whose flag is bigger? © WFO

The remaining footage (two more minutes or so) is preoccupied with the equipment transfer up a steep craggy hill, putting up a tent, saying goodbye to the Husvika crew plus a few everyday life scenes featuring expedition members both inside and outside the tent, while unpacking, gathering water, peeling potatoes and opening canned goods. The film ends

abruptly with the characterization of Stanisław Siedlecki as an experienced polar explorer, in whose presence all other team members (novices to the Arctic) feel right at home.

What was in the part that has gone missing? The two above-named unsigned articles in *Wiadomości Filmowe* and *Kurjer Warszawski* of December 1935 (essentially the same text with minor variations) list 'the extremely fascinating adventure of discovery, work full of danger among the menacing peaks and glaciers of the polar mountains, camp life [...] full of specific humor [and] great cinematography on the same level as the best films of this kind'. It is hard to lend full credence to this description, given that both articles also mention 'polar nights', even though the expedition took place during the midnight sun season. This is either a Freudian error of some magnitude or the anonymous journalist had not really seen the film. The piece in *Kurjer Warszawski* promised that the film would be screened in Polish cinemas soon but we have not been able to find any information about such screenings, let alone post-screening reviews.<sup>24</sup>

Meanwhile, the film was shown in Norway, at least once, on 17 September 1936, at the Victoria cinema on Karl Johans Street (no. 35), i.e. in the heart of Oslo, a short distance away from the Norwegian Parliament. This sole screening resulted in a wider press coverage in Norway than it has been possible to detect for the film's Polish release. The Oslo event was reported next day in the central newspapers *Morgenbladet, Morgenposten, Nationen, Norsk Tidend* and *Tidens Tegn*; and on 22 September, in the provincial *Lofotposten*. Perhaps the high profile of several event attendees – high-rank diplomats, researchers and industrialists – can explain such a concerted action. Two members of the most recent (July-September 1936) Polish expedition to Svalbard, Siedlecki and the physicist Konstanty Narkiewicz-Jodko (1901-63), were at the cinema, too.<sup>25</sup>

The article in *Morgenposten* classified *Do ziemi Torella* as a *Kulturfilm*.<sup>26</sup> This notion was borrowed from Germany<sup>27</sup> and encompassed 'films made for cultivating and educating broad masses of primarily adult viewers, and presented as objective, universal, and truthful, [...] with the primary aim of shaping and ordering the audience's ideas about the world'.<sup>28</sup> Judging by what remains of *Do ziemi Torella*, it clearly belongs to the *Kulturfilm*'s subgenre of expedition film and in that sense could be likened to Norway's early amateur films about Svalbard, *Vårtokt til Bjørnøya* (A Spring Trip to Bjørnøya) and *Svalbardtokt* (A Trip to Svalbard), both from 1930, lasting about ten minutes each and edited from the footage by Thor Iversen (1873-1953), a fisheries official, who went to Svalbard to assess the commercial viability of its fish stocks and later toured around Norway to screen the films he had shot on his travels up north.<sup>29</sup>

However, on the basis of the surviving fragment of *Do ziemi Torella*, it is perhaps easier to draw conclusions about the debt it owes to a specific, rather than generic, origin, namely to the 1930 eighty-two-minute-long American documentary *With Byrd at the South Pole*, awarded an Oscar for cinematography (by Willard van der Veer and Joseph T. Rucker). The similarity between the two films was duly detected by the aforementioned pieces in *Wiadomości Filmowe* and *Kurjer Warsawski*, even though neither publication elaborated on the topic in any detail.

Byrd at the South Pole portrayed the American naval officer Richard E. Byrd's first mission to the South Pole and was a much more majestic affair than Do ziemi Torella. Byrd was distributed by Paramount Pictures and had a bigger budget, a larger crew and a wider appeal. Still, it is Byrd's structure and tone that Do ziemi Torella is consciously trying to imitate, including the dramatic soundtrack, the live opening lecture (delivered by Byrd personally) and the dramatis personae introduction style, with personal appearances by the two above-named cameramen, as well as the subsequent occasional voiceover narrative and pictures of a perilous nautical journey through ice. Even the flag sequence in Do ziemi Torella is derived from Byrd, in which British, Norwegian and American flags are raised over Byrd's exploration camp in the Antarctic (48:51-49:30).

The flags' position is unequal. The American one occupies the central space and is notably larger and taller than the Norwegian and British ones (erected to honour the previous South Pole visitors, Roald Amundsen and Captain Scott), which appear to be more or less equal in size and height. In *Do ziemi Torella*, the Polish flag is flying above the Norwegian, which is also smaller in size. This is symptomatic of the national pride of newly independent and reunited Poland, because of its ability to punch above its weight and enhance its international profile, thanks to the country's contribution to polar research.

The pioneering spirit that permeates the atmosphere of *Do ziemi Torella* (deriving from the excitement of charting the territories that no one has likely been to before) is nothing short of heroic. As the first intertitle in *Byrd* says, 'the Conqueror is still the Hero of Heroes. But War, once the Hero's only field, now gives place to a grander campaign – the conquest of the last mighty forces of Nature' (00:45-00:59), residing in the polar regions. Dozens of Poland-related placenames on Svalbard's geographical map – such as Bernadzikiewiczfjellet, Bernawskibreen and Siedleckibreen<sup>30</sup> – is an obvious proof of Poland's priority in certain aspects of polar record (which, owing to global warming, may outlast on paper the actual existence of the glaciers that had been named after Polish explorers).

The rest of the Polish polar films that survived from what we have termed the heroic period are on a much more modest scale.<sup>31</sup> There are in fact only two of them, made in the genre of actuality film, i.e. a (once popular) loosely structured moving-image documentation of real-life scenes, barely lasting for one or two minutes. One such film was titled *Wyspa mgiel i wichrów* (An Island of Fog and Winds), and another, *Wśród mórz Arktyki* (On the Arctic Seas). Both were just over one minute long, released in 1937 via the Polish Telegraphic Agency (PAT) and linked to Centkiewicz, who most likely filmed them personally. The first one – part of PAT's *Tygodnik dzwiękowy* (Sound Weekly) – takes a glance at the buildings on Bjørnøya where the Polish meteorological station used to be in 1932-33, as well as at the multitudes of birds nesting in the island's cliffs, and at an Icelandic horse that feeds on those birds. This actuality film must have been made during Centkiewicz's return visit to Bjørnøya in 1936.<sup>32</sup> The film shares the title with Centkiewicz's 1934 book, most likely in order to boost the sales of its second edition, which also came out in 1937.

The second film depicts hunting for seals and walruses from on board m/s *Isfjell*, which sailed from Tromsø to the White Sea towards Novaya Zemlya in late winter 1937, at times struggling with difficult ice conditions. From Centkiewicz's letter to the director of the Svalbard and Arctic Ocean Research enterprise Adolf Hoel, of 23 January 1937, it transpires that Centkiewicz (then an employee at the Polish Meteorological Institute) undertook this trip 'to make measurements of the permeability of sea water to light'. He also wished to acquaint himself 'with methods of winter travel through ice' and 'expose some of the scenes on a cinematographic film'. <sup>33</sup> We cannot therefore be sure how much of the film was shot near Svalbard, yet we include it in our inventory nevertheless, to err on the side of caution.

It is also known that during the last Polish interwar expedition to Svalbard in pursuit of glaciological, cartographic, botanical and meteorological research on Oscar II Land in June-September 1938,<sup>34</sup> Bernadzikiewicz (the expedition's technical leader) filled some 1000 metres of film 'documenting the activity and movement of glaciers in addition to the relevant field observations'.<sup>35</sup> Less than a year later, Bernadzikiewicz died in an avalanche in the Himalayas and the Second World War began. As it is not clear what has happened since to the rough footage from Oscar II Land,<sup>36</sup> we do not include it in our inventory.

Films of the 1950s-1960s: *Wśród gór i dolin Arktyki* (Among the Mountains and Valleys of the Arctic) and the exotic period

The Second World War, reconstruction costs and Stalinist purges are to blame for the almost two-decade-long hiatus in the Polish exploration of Svalbard. Poland's activities on the archipelago resumed in the run-up to, during and in the immediate aftermath of the International Geophysical Year (IGY, 1957-58). Together with sixty-six other participating nations, Poland made a lasting contribution to the IGY's ambitiously comprehensive research programme. Head of the Polish IGY committee was Henryk Niewodniczański (1900-68), a prominent nuclear physicist. Another physicist, Stefan Manczarski (1899-1979), was appointed academic secretary to the committee. It was decided that the best person to lead Polish expeditions to Svalbard (as part of the Polish IGY input) would be Siedlecki, who by then had obtained a doctorate in geology and worked at the Department of Geology in the Polish Academy of Sciences.<sup>37</sup>

As Siedlecki later recalled in the film *Polska stacja polarna w Hornsundzie* (The Polish Polar Station at Hornsund, 1993) by Ryszard Wyrzykowski (1946-2003), some colleagues suggested that the expedition could be done on the cheap: 'It's enough if two or three researchers are sent, let them overwinter there in some old trapper's house and we'll publicize it for you' (02:35-02:44). Siedlecki was vehemently against it: 'I'm not going to act in some advert in a dilapidated, rotting trapper's house and later claim we've accomplished a scientific feat. On the contrary: if we do a job, we do it in such a way that it is good enough to represent Poland on an international arena' (ibid., 02:51-03:13). To achieve this, Siedlecki proposed building a proper polar station on Svalbard: instead of 'camping in tents and spending thirteen or even fourteen months in very primitive conditions, [...] we will create a Polish research station similar to any research station existing in Europe' (ibid., 02:02-02:22). Siedlecki's view prevailed.<sup>38</sup>

Yet which location to choose? A reconnaissance mission in August 1956 set its sights firmly on the Hornsund fjord, with a clear preference for Isbjørnhamna (or Polar Bears' Bay), partly for sentimental reasons (the Hornsund area had been familiar to Siedlecki since the mid-1930s<sup>39</sup>) and partly for photogenic reasons (Siedlecki believed that the bay had the most beautiful scenery he had seen on the archipelago)<sup>40</sup>. The logistics of the place, however, left much to be desired. Suffice it to mention that the calving of the Hans glacier nearby would produce a significant commotion every now and then. Besides, the bay was too shallow and icy for a big boat to come close to the shore, which created difficulties whenever the supplies and equipment had to be unloaded and transferred to the station (one can observe, for example, the challenge of delivering there a tractor and a jeep from on board s/s *Baltyk* in

July 1957 in *W Zatoce białych niedźwiedzi* (At Polar Bears' Bay, 1961), a feature-length documentary by Jarosław Brzozowski (1911-69)).<sup>41</sup>

Even so, those who know about Siedlecki's side career as a filmmaker would not be surprised that visual splendour played such a role in his choice of location for the base. In 1945-46, in parallel with his work at the Department of Geology at the Jagiellonian University, Siedlecki took part in the Film Workshop for the Youth (Filmowy Warsztat Młodych), organized in Kraków by the Polish Film Institute. Together with Brzozowski, he co-wrote the script for the prize-winning documentary short *Wieliczka* (about the famous Polish salt mine) and co-directed another (commercially successful) documentary short *Skroplone powietrze* (Liquefied Air, both 1946).<sup>42</sup> Moreover, Siedlecki was also an amateur cameraman (whose footage of the reconnaissance trip to Hornsund can be seen in *W Zatoce białych niedźwiedzi*, 03:09-04:35), as well as a consultant for, and a participant in, a number of popular science films about the Arctic.

Instead of 'two or three researchers', a total of ten were meant to overwinter in Hornsund, and at least twice as many, to stay for the two summer seasons only. The winter group mostly engaged in astronomical, ionospheric, meteorological and glaciological research, while the summer ones, in addition to the latter two branches of science, fulfilled tasks to do with cartography, hydrology, geology, geomorphology, geophysics, botany and zoology. The pre-WWII cohort of visitors to Svalbard, which included Centkiewicz and Różycki (now a professor), was joined by several scientists with the non-Svalbard Arctic experience, such as the glaciologist Aleksander Kosiba (1901-81) and the geomorphologist Alfred Jahn (1915-99). A younger generation of Polish Svalbardians was represented by the architect Jerzy Piotrowski (1930-72), who designed and built the first (movable, prefab) Hornsund station; and the geologist Krzysztof Birkenmajer (1929-2019), who first came to Svalbard in 1956 and returned there on twelve further occasions. Among newcomers to Svalbard were the ornithologist Bronisław Ferens (1912-91), who came to Svalbard twice, in 1957-58; the geodesist Jerzy Lech Jasnorzewski (1906-89), who went to the archipelago three times, in 1957-58 and 1986;<sup>43</sup> and the photogrammetry specialist Colonel Cezary Lipert (1920-87), who visited Svalbard four more times, in 1957-59 and 1982-83. Even Niewodniczański and Manczarski made a short trip to Hornsund, as did Lugeon (now President of the Swiss IGY committee), who thus reunited with Siedlecki on Svalbard a quarter century after their first sojourn on Bjørnøya.

Needless to say, Polish scientific activities on Svalbard had to be chronicled for posterity. According to Siedlecki's ex-wife Anna, Siedlecki 'was well aware of the value of

film for popularizing knowledge and recording events [...]. During the years of constructing the Polish station in Isbjørnhamna and organizing summer and winter expeditions, he simply did not have time to film, so he entrusted this to other expedition participants, especially the experienced filmmakers'.<sup>44</sup> There were two film crews on Hornsund in 1957-58. The first was led by Siedlecki's old acquaintance and collaborator Brzozowski, and the second, by the renowned director of nature films Włodzimierz Puchalski (1908-79).<sup>45</sup> Puchalski's job was to document the 'life of the Arctic flora and fauna',<sup>46</sup> while Brzozowski's responsibility seems to have been to film pretty much everything that was going on.

Altogether, in the late 1950s – early 1960s, Brzozowski made six documentaries out of the black and white footage that he brought back from his journeys to and around Svalbard with members of Siedlecki's expedition. Two of these films, *Północna Norwegia* (Northern Norway; on the crossing of Øresund, passing through Lofoten and docking at Narvik and Tromsø) and *Notatki z rogatej ziemi* (Notes from a Horned Land, about a Sámi settlement), both from 1959, have nothing to do with Svalbard and will not be either considered here or included in our inventory. The remaining four films – three shorts (*Maly reportaż spod bieguna* (A Short Report from Near the North Pole), *Na dalekiej północnej wyspie* (On a Faraway Northern Island) and *Szpicbergi* (Spitsbergen)) and the already mentioned *W Zatoce białych niedźwiedzi* – are remarkable in the way they keep recycling the same or similar motifs and sequences. Brzozowski's four documentaries about Svalbard will therefore be examined as a kind of continuum (merging all three of Kustusch's subgenres, i.e. 'animals (and plants) in Eden', 'illustrated lecture' and 'scientist as explorer').

Almost the same can be said and done about the six documentary shorts, three black and white and three colour ones, filmed in Northern Norway and on Svalbard by Puchalski (except that on this occasion we are dealing only with the summative 'animals and plants in Eden' variety). One of these shorts, *U brzegów Skandynawii* (On Scandinavian Shores), released in 1965 in co-authorship with Puchalski's assistant and relative Janusz Czecz (1928-98), actually features the island of Risøya near Tromsø<sup>47</sup> and therefore does not belong to our collection. In *Kwitnąca Arktyka* (The Blossoming Arctic), the first third of its nine-minute length is devoted to plants that grow somewhere else in Northern Norway and not on Svalbard, yet we still include this film in our selection. Of the remaining four films, all from 1958-59 – Śpiewające góry (The Singing Mountains), *Wyspa piór i puchu* (The Island of Feathers and Down), *W tundrach Arktyki* (In the Arctic Tundra) and *Wśród gór i dolin Arktyki* – the last one stands out, as it runs for nearly fourteen minutes (thus being the longest of Puchalski's Svalbard films), incorporates all the main themes to do with Svalbard in

Puchalski's oeuvre and employs colour, which is arguably the best way to do Svalbard's scenery full justice, especially in the summer. In Puchalski's own words, moss and flowers' 'colorful green world of the Arctic, against the background of aquamarine waters of the ocean and ultramarine sky, makes it an irresistibly beautiful and vivid landscape'.<sup>48</sup>

Interested only in Svalbard's plants, birds and animals (and probably mindful of the fact that on Svalbard people have been incidental to nature), Puchalski shows himself only very rarely in the frame (as a kind of artist's own signature), otherwise using camouflage and a telephoto lens to obliterate himself from the scene and let his 'actors' behave spontaneously and undisturbed. In those days, birds and animals in Hornsund were apparently so unused to human presence that they were not afraid of it at all and even posed willingly in front of the camera. Some expedition members, however, began firing around, just for fun, and frightened some of Puchalski's objects of interest away. 49 Bad weather provided another significant obstacle, as of a hundred days spent by Puchalski on his first visit to Hornsund in July-September 1957, the midnight sun (which would have been ideal for filming around the clock) shone only for ten days in total. Also, at times moisture affected the film's emulsion and made shooting impossible.<sup>50</sup> As the expedition arrived to its final destination only in July, quite a few plant and bird species had by then already blossomed, or bred and flown away. As a result, after using some 6000 metres of film and intending to turn them into one black and white documentary and two colour ones,<sup>51</sup> Puchalski decided this was not enough – and returned to Hornsund next June.<sup>52</sup>

Following the additional filming, some of Puchalski's footage has been edited into two complementary shorts about birds. The first (Śpiewające góry, black and white) features, among others, black guillemots, black-legged kittiwakes and fulmars populating the Sofiekammen ridge in Hornsund. The second (*Wyspa piór i puchu*, colour) is dominated by common eiders, barnacle geese, terns and skuas, which breed on an unnamed small island (most likely one of Dunøyane), a few miles away from Spitsbergen's west coast, out of reach for Arctic foxes that cannot get there when the ice melts. Ivory gulls and snow buntings appear in both films. It is as if Puchalski was experimenting a little in an attempt to establish whether the same species would look better in colour or in black and white (for the period in question, colour film was a relative luxury in Poland, anyway, only rarely available to documentary filmmakers).

*Kwitnąca Arktyka* focuses almost exclusively on flora, with the sole exception of grazing reindeer – and here colour is an undisputed must, conveying multiple hues of yellow, brown and green as it pictures different kinds of vegetation growth on the stones. Viewers

can observe cotton-grass, mountain avens, draba, campions, Arctic poppies and a wide variety of saxifrage (all obligingly identified for them by the voiceover). It is as if a herbarium – like those dutifully gathered by the Polish Svalbardians in the 1930s and lodged with scientific institutions on arrival home<sup>53</sup> – has suddenly come to life.

The black and white *W tundrach Arktyki* focuses on the archipelago's fauna. Arctic foxes (a visual leitmotif of at least three Svalbard films by Puchalski) and seals, as well as skuas, terns and barnacle geese again, are depicted as rightful inhabitants of the seemingly serene Svalbard sea- and landscape. In general, however, Puchalski does not idealize the animal kingdom around him. It is a bird-eat-bird world, as one may put it when watching how a gull swallows eider eggs (*Wyspa piór i puchu*) or how the carcass of one bird is pecked at by another (*Śpiewające gory*, see Fig. 2). "Nature's law is the law of the strongest", points out the voice-of-God narrator in *Śpiewające góry*.



Fig. 2. Śpiewające góry (1959): A bird-eat-bird world © WFO

Finally, plants, birds and mammals share the limelight together as part of the same habitat in *Wśród gór i dolin Arktyki*. Specimens of Svalbard's flora take up the first third of the film, sometimes with a matchstick added for scale. Of those not named earlier before, rockfoils, snow-in-summers and alpine bistorts should be mentioned. Among the birds, a little auk makes an appearance in a kind of character role<sup>54</sup> (this species on its own will become the subject of a documentary by Dorota Adamkiewicz and Joanna Łęska, discussed in the section on the ethical period below). One Svalbard animal that is conspicuously absent in Puchalski is the polar bear. In an article published after Puchalski's first stay on Svalbard,

he admitted that he would have liked to film a polar bear but that year they all apparently 'wandered far into the icy North'.<sup>55</sup>

If there had ever existed a rivalry between Puchalski's and Brzozowski's teams on Svalbard, Brzozowski got one up on his colleague by managing to catch a glimpse of several polar bears on camera (*Maly reportaż spod bieguna*), one of them even well inside the glaciologists' tent camp (*Szpicbergi*). *W Zatoce białych niedźwiedzi* also contains polar bears (see Fig. 3). After all, audiences would have been really disappointed if a film called *At Polar Bears' Bay* would not have had any polar bears in it! To be fair, following scientists with his camera, Brzozowski ventured further than Puchalski inside Svalbard's territory, and had a higher chance to meet the bears. Unlike Puchalski, Brzozowski also captured on film some of the archipelago's dark season – and Northern lights.



Fig. 3. *Szpicbergi* (1959): A polar bear in a science camp © WFO The animal that Puchalski's and Brzozowski's footage shares is Arctic fox. However, once an Arctic fox is filmed by Brzozowski, it is shown when playing with various items of his clothing. It's as if Brzozowski is sending a message to Puchalski: I can film wildlife just as well, but instead of taking humans out of the picture I'd rather concentrate on their interaction with nature. Another example of such an interaction comes from *Na dalekiej północnej wyspie*, in which a group of scientists is walking across the Svalbard terrain while spinning sticks above their heads to protect themselves from aggressive birds. Yet another, from *W Zatoce białych niedźwiedzi*, shows how an expedition member is feeding, from a milk bottle, an orphaned baby seal, brought near the Hornsund station by storm.

It is not that scenes of human/animal interaction are completely non-existent in Puchalski's Svalbard documentaries but they are very rare. One memorable sequence from *W tundrach Arktyki* includes Czecz's 'interview' with a newborn tern, while making a field sound recording. As for Brzozowski, he is equally interested, too, in interaction between humans (sometimes over vast distances), between humans and elements (e.g. in *Maly reportaż* and *W Zatoce*, the wind is stronger than several adult men who struggle to put up a tent), and between humans and man-made objects (such as scientific equipment). In *Szpicbergi* and *W Zatoce*, Professor Jahn and his team are measuring soil erosion with the help of the so-called soil movement gauge (or *gleboruchomierz*), devised by Stanisław Bac (1887-1970). In the latter documentary, we can also see Svalbard's Governor Odd Birketvedt (1916-2009) on a visit to Hornsund by a dog sled, as well as hear congratulatory radio messages from Manczarski and the overwinterers' families during Christmas.

W Zatoce provides a detailed account of what and where exactly each scientific team was doing (in the coastal areas of Treskelodden, Gåshamna and Van Keulen fjord, as well as on the Heclahuken mountain and the Werenskiöld glacier, etc.), and could easily serve as a visual aid for the mission's final report. There is also a noticeable attempt to name as many expedition participants and visitors as possible. Yet there were so many of them that Brzozowski had to, on the one hand, respect the hierarchy and prioritize senior management (such as the expedition head and all the professors, who are jointly allocated the lion's share of the screen time, with Siedlecki in the lead), and on the other, pander to the watchability factor and specify the individuals who got involved in real-life dramatic events. Among those were the engineer Roman Trechciński (1923-2007), who fixed a sudden problem with the Hornsund camp's electricity supply; the glaciologist Jarema Rdułtowski (1933-63), who fell off an icy cliff, injured himself and had to be carried on board the Bałtyk on a stretcher; and the physician Zbigniew Jaworowski (1927-2011), who suffered from stomach pains and could only be rescued by a Soviet ice breaker, after a series of radio messages (so isolated from the rest of the world Svalbard was at the time).

Overcoming such challenges as a hard-to-access location and a danger to life can qualify human actions as heroic. Svalbard remains a remote and relatively risky place to be in even today. Yet the way it is portrayed by Puchalski and Brzozowski should probably be defined as merely exotic. Being a pioneer is also a status that befits the concept of heroic achievement. However, when an exceptional deed has been done repeatedly, its heroic lustre, if it has one, is bound to fade a little, no matter how demanding the deed is. In 1934, Siedlecki (although not a novice on Svalbard) was one of the very few first Poles on Torell

Land. In 1936, and especially post-1956, he and those who came and went with him over and over again, became intermittent visitors on Svalbard. The Svalbard novelty would not, of course, wear off entirely, but the recurrent triumph has not perhaps been felt as intensely anymore – either by Polish Svalbardians or by the wider public.

The morphing of the heroic into the exotic can therefore be achieved with an admixture of habituation, familiarisation and domestication. There is an obvious tendency to domesticate Svalbard a bit in Brzozowski's and Puchalski's films, not only by featuring a Polish home on the Hornsund shores but also, for example, by pointing at the Svalbard plant species that can be found in the Tatra mountains (e.g. catchfly and alpine chickweed in *Wśród gór i dolin*, as well as Arctic buttercup and stitchwort in *Kwitnąca Arktyka*). Bringing Tatra shepherd dogs to the Hornsund station (including seven puppies, filmed in both *W Zatoce* and *Wśród gór i dolin* – in the latter, in and around a wooden crate marked 'Made in Poland') can be treated as a minor act of domestication, too. And a Polish flag in *Maly reportaż* (04:51-04:59), this time around displayed on its own, without a Norwegian or any other flag next to it on Svalbard's soil, speaks eloquently for itself.

A little domestication does not go amiss when it comes to promoting an exotic topic, because the public may feel estranged if the subject matter looks too unfamiliar. This does not mean that exoticizing can easily take care of itself and should be left to its own devices. The marketing strategy for Puchalski's films demonstrates a clear intention to exoticize. One of his working film titles, the matter-of-fact *Flora północi* (Flora of the North),<sup>57</sup> was turned into the poetic *Kwitnąca Arktyka*, thus sharpening up the oxymoronic potential of the heading (as the Arctic is normally associated with ice, not flowers) and increasing its provocative appeal to the Polish audiences, for whom the Arctic would first and foremost associate with a Russian/Soviet exile. The titles of some Svalbard films by Brzozowski also display the desire to exoticize by bringing up polar bears and the North Pole.

It is hard to say if such a policy of exoticization succeeded in ensuring passable attendance figures in ordinary cinemas (Puchalski's films were released through Centrala Rozpowszechniania Filmów, or the Headquarters for Film Dissemination),<sup>58</sup> since they were unlikely to be screened on their own because of their format but must have accompanied a main feature instead. We are unaware of any contemporary special screenings for Puchalski's Svalbard five. It was probably unwise to screen them all at the same time, considering how close to each other they were. For its part, the full-length *W Zatoce białych niedźwiedzi* by Brzozowski received several awards in 1961-62, including UNESCO's Kalinga prize for popularizing science.<sup>59</sup>

Brzozowski must have felt that such a great backdrop as Svalbard should not be limited to the comparatively small documentary film audiences. The archipelago undoubtedly deserves to be seen by a much wider public, usually attracted by action adventures. A script by Centkiewicz and his wife Alina, *Na białym szlaku* (On the White Trail), about a weather station on Greenland caught in a WWII crossfire (an adaptation of their own story), presented Brzozowski with an opportunity to showcase Svalbard (as a stand-in for Greenland), in a project financed by a filmmakers' association called Studio. Not having enough experience with feature films, Brzozowski teamed up with another director, Andrzej Wróbel (1933-99), who had previously assisted Andrzej Munk and Andrzej Wajda. In June 1960, Brzozowski went to Svalbard yet again to film a number of action scenes for *Na białym szlaku* there. This visit was captured in a two-minute-long 1961 newsreel entitled *Biały szlak*, by Polska Kronika Filmowa (PKF). Both the newsreel and the feature film have been added to our inventory, yet the film will not be discussed here, since its plot has nothing to do with Svalbard.<sup>60</sup>

Films of the 1970s-1990s: Ryszard Wyrzykowski's Svalbard trilogy and the routine period

As the funding for the large-scale international geophysical cooperation had run out, the Hornsund station got temporarily transferred into the care of the Governor of Svalbard and would not be used for research purposes for most of the 1960s. Polish scientists returned to Hornsund in the 1970s, first for summer expeditions, and since 1978, for research activities on a permanent (rotational) basis. This renewed presence (which also involved mountaineering, glaciospeleology<sup>61</sup> and boating), as well as various anniversaries of earlier Polish journeys to the archipelago, prompted the appearance of yet another group of Polish documentaries about Svalbard. Most documentaries in this group, diverse as they are and usually combining a minimum of two if not all three of Kustusch's subgenres, share common features that came to dominate the Polish filmmaking about Svalbard for three decades or so. The shared trait of such features is perhaps best defined as routinising the Arctic exploration.

We are not using the word 'routine' in any derogatory sense here. In the context of Polish documentaries about Svalbard, made in the 1960s-1990s, routine has more to do with the regularization, normalization and canonization of Arctic adventures, where appropriate, than with repetitiveness, boredom or fatigue. After all, it is probably fair to say, without diminishing anyone's endeavour, that the seventy-seventh human in space is not quite the same as the first human in space.<sup>62</sup> It is hard to suppress the 'yet again' feeling when

watching cinematic representations of the Poles' 'fourteenth' overall voyage to Spitsbergen, or the Polish Institute of Geophysics' 'eighth' expedition there.<sup>63</sup> What's more, the stories of the pioneers of Polish polar exploration on Svalbard (and beyond) are told over and over again, and enter the primary school level.<sup>64</sup>

It is not even necessary anymore for the filmmakers producing Svalbard-related documentaries to travel to Svalbard personally. Instead, someone else's (most often Bernawski's, Puchalski's and/or Brzozowski's) original Svalbard footage can be recycled. here filmmakers who do go to Svalbard themselves still engage occasionally in paying an homage to Puchalski and Brzozowski, either by quoting their images directly or by imitating their style and/or content. Arctic flora, foxes and reindeer become staple features in a number of documentaries by different directors. Even polar bears, owing to the 1973 ban on hunting them, turn danger-wrought yet highly sought-after photo-ops with them into a flaming nuisance, as Zalewski testifies in Wyrzykowski's *Polska stacja polarna w Hornsundzie* (15:37-15:47): When polar bears became protected species on Svalbard and could not be shot, around two hundred of them would go through the Hornsund station annually'. This could paralyze the station's work for days because of the high risk for scientists to go outside and read sensors' data.

However, if this is what Svalbard's routine is about, it is probably rather far from most people's typical concept of routine. In the opinion of Professor Jahn, voiced in Iwona Bartólewska's *Polonica arktyczne* (Poland in the Arctic, 1992; 10:30-10:40), 'if you take a person off the street and send them to Spitsbergen by plane, not everyone is going to like it there'.<sup>67</sup> Another seasoned Svalbardian, Stanisław Siedlecki, actually welcomed polar bears' visits to Hornsund, as a kind of distraction from the monotony of everyday duties that makes it difficult to motivate oneself when a small collective of people is isolated from the rest of humanity, in challenging conditions, for many months (see *Stanisław Siedlecki* by Rollny, 16:40-16:57 and 17:45-17:53). The dangers of routine, understood as dullness, could therefore in fact be greater than those of wild beasts.

On the other hand, a well-established and observed routine can help you organize your life in a meaningful and responsible way, to make sure that your day's work is always done, no matter what, while time spans at the lab, the library and in the field are alternated with periods of rest and recreation. From the outset, Siedlecki insisted that the Hornsund station should be bound by labour regulations and discipline, similar to any science lab in Poland – and should also be seen as a normal dwelling with its own conditions and traditions, just like any family home in Poland (see *Zimny lqd*, or Cold Ice, by Kazimierz Błahij, 1984;

15:06-15:24). Perhaps the best opportunity to get an insight into Hornsund's scientific and domestic traditions would be to focus on Wyrzykowski's 1993 documentary *Jak tam jest – rok w Hornsundzie* (What It's Like: One Year in Hornsund) and its two companions, *Wyprawy z Hornsundu* (Travels from Hornsund, 1994) and the already cited *Polska stacja polarna w Hornsundzie*, all filmed for TVP by WFO.<sup>68</sup>

Rok w Hornsundzie focuses not so much on what is exceptional but what is ordinary in polar researchers' lifestyle at the station: what motivates people to come here, how they get drinking water, when the dark season begins, how long it lasts, how cold it usually is... The station's tractor is shown making paths to observation sites through the deep snow. Scientists venture out in pairs, accompanied by a dog, to protect them against polar bears (snow scooters cannot really help with getting away in case of a bear attack, especially in the polar night conditions). The daily observations and measurements are carried out regardless and should lead to MScs and PhDs, the voice-of-God narrator says – and adds: 'Not much of polar romanticism here' (07:20-07:23).

As far as the living quarters are concerned, each expedition member has a room of their own, decorated in accordance with their individual tastes. In winter, though, leisurely activities outside working hours tend to gravitate towards the common room. Here station occupants can be seen playing chess and putting together jigsaw puzzles. There is even an opportunity for personal grooming. A hair trimming session is filmed. 'The times when polar explorers smelled of fur and cod-liver oil have passed', the narrator comments (18:06-18:11).

Even the kitchen duties are described: everyone (presumably, among the overwinterers, up to ten in total) has to cook and wash up once in ten days. As for canned food, it is largely consigned to the past: a pantry stuffed with fruit and vegetables is shown. When drinks are mentioned, an Amundsen quote is invoked (from chapter 2 of his 1912 *South Pole* book): alcohol is 'a medicine in polar regions'. Who would argue against Amundsen's authority? Hornsund dwellers are said to celebrate not only their own birthdays but also those of their wives and their mothers-in-law.

Although there is a regular contact with Poland via radio (connection quality varies) and postal services (depending on the weather, Norwegian helicopters try to deliver and collect mail every ten days; it takes less than a week for letters from Poland to arrive in Hornsund)<sup>69</sup>, explorers miss their families badly, especially during Christmas and New Year. The Christmas dinner leftovers are given to a polar bear that has dropped by. The arrival of 1993 (Wyrzykowski came to Hornsund in October 1992) is greeted by firing signal pistols and drinking champagne.

The station's international context and significance are foregrounded in another Wyrzykowski film, *Polska stacja polarna w Hornsundzie*. When interviewed in it, Siedlecki presents the station as a kind of cultural envoy that can demonstrate Polish values to the world, especially the West. After all, Poles have two fatherlands, he says: 'planet Earth and our own country' (05:55-06:02). In his own interview in the same documentary, Zalewski illustrates Siedlecki's thought thus: Hornsund is part of the international scientific programme Global Change, which monitors alterations happening across the planet by means of seismology, magnetism, climatology, permafrost studies, etc. Later in the film, Zalewski specifically mentions Polish scientific cooperation with the Norwegian Polar Institute and University of Oslo (UiO). A Norwegian physicist from UiO is introduced as a regular visitor to Hornsund. He is shown when installing a computer programme at the station, so that observations he needs could continue without him present.

As far as Norwegian visitors are concerned, not only tourists and scientists stopped by at, or passed through, or stayed near the Hornsund station. A young Norwegian miner called Lars Fasting (1938-2021) was hired by Siedlecki as a technician in Spring 1958. Fasting worked at the Hornsund station for some months and learnt Polish well enough to subsequently study architecture in Warsaw. The legendary Norwegian trapper Fredrik Rubach (1915-89) lived in Hyttevika, in the vicinity of Hornsund, for years. He can be seen in Czajkowski's 99 dni na Spitsbergenie (Ninety-nine Days on Svalbard; 21:41-23:30). Also, Svalbard's Governors came to Hornsund in the line of duty. Thus, 99 dni na Spitsbergenie shows Governor Frederick Beichmann (1924-2002), who travelled to Hornsund by m/s Nordsyssel – and brought mail for the Poles with him. Reciprocal visits took place as well. Wyrzykowski's last film in the trilogy, Wyprawy z Hornsundu, describes how the director himself went to the Governor Odd E. Blomdal (1927-2015) in Longyearbyen seeking permission to film birds in the archipelago's nature reserves, usually accessible only to scientists.

Soviet researchers, normally based at the Soviet/Russian mining town of Barentsburg, frequented Hornsund, too. *Wyprawy z Hornsundu* also mentions the Russian presence on board RV *Oceania*, a vessel in the service of Polish oceanographers that entered Arctic fjords to take hydrobiological samples. It has to be said, however, that before the collapse of the USSR, the Soviet/Russian desire to partner with Poles on Svalbard may well have had an ulterior motive. Węsławski recalls:

At that time, Russians still considered Svalbard their historical territory, and Norwegians, its administrators. [...] Sometimes Russians made this all too clear to the

inhabitants of Norwegian settlements, as well as to scientists from various countries, that it was Russia that held the rights to the archipelago. This was particularly obvious with regard to the scientific staff of the Polish station in southern Spitsbergen, which, from a military point of view, was treated as a strategic outpost. The station was located in a place eminently suitable for targeting nuclear submarines. Russians have always been interested in what we've been doing. They also liked working with us because, under the pretext of scientific cooperation, they always controlled us. They wanted to emphasize that it was them who wielded real power.<sup>72</sup>

Nevertheless, in the Iron Curtain years, Svalbard provided a major attraction for Polish scientists precisely because, thanks to the Svalbard Treaty, it was possible to enjoy contact with Westerners there without securing a visa. Another Polish scientist remembers how in the late 1970s – early 1980s, at and near Hornsund, she met British, Belgian and French citizens. Already in 1957-58, in the course of the IGY, the Hornsund station neighboured Swedish, Finnish, Swiss and Austrian research stations. As the narrator in Bartólewska's *Polonica arktyczne* puts it (19:11-19:18), It was polar research that raised for Poland the Iron Curtain in science'. The Hornsund station remains an important hub for international scientific cooperation today.

Rok w Hornsundzie was not the first documentary solely devoted to the oldest Polish research station on Svalbard. Kapuściński's Polarna Stacja Hornsund (shot in 1985-86 and released in 1988 by Interpress-Film) had preceded it by five years. Among other scenes, Kapuściński's documentary featured the painstaking unloading of many tons of supplies (brought over by m/s Jantar), by recourse to a winch, muscle power and multiple motorboat rides. Similar sequences had been included not only in Do ziemi Torella and Brzozowski's W Zatoce but also in Ryszard Czajkowski's 99 dni na Spitsbergenie (1971), in the anonymous Spitsbergen (1978) and in the 1986 PKF actuality short Za Kołem Polarnym (Beyond the Arctic Circle), thus becoming something to expect in a Polish film about Svalbard and not at all a novelty item.

The visual *motif* of researcher doing something with a piece of scientific gear (a variation on the man-machine trope) – in constant use in Polish documentaries about Svalbard ever since Brzozowski's *Mały reportaż* had demonstrated a hand-held anemometer – is employed repeatedly by Kapuściński. Thus, the seismologist Wiesław Wierzbicki (17:00) can be seen studying Northern lights with the help of an all-sky camera, mounted on the station's rooftop and taking pictures every other minute, as and when necessary.

The tradition of depicting the past and present managers of Polish stations on Svalbard is upheld, too. In Kapuściński's film, in addition to the renowned Siedlecki (Hornsund's guest of honour at that moment in time), it is possible to spot Węsławski, head of the outgoing expedition team, and the geophysicist Antoni Andrzej Szymański (1938-92), head of the incoming expedition team. What's more, the legendary achievements of the first generation of Polish Svalbardians are purposefully reenacted for commemorative reasons, which also contributes to routinization. It was not enough, for example, that in 1980 Norwegians reprised the 1936 feat by three Poles (Siedlecki among them) who had crossed Spitsbergen from South to North on skis without the help of dogs. On the fiftieth anniversary of the original event (Kapuściński reports), Wojciech Moskal (of the subsequent North Pole ski conquest fame), Tomasz Janicki, Zbigniew Pietroń and Jan Michał Zazula (1953-97) reconstructed the 1936 ski run again.

Kapuściński is aware that his film reflects, to a considerable degree, fairly routine incidents (broadly speaking) at and around the Hornsund station. Unloading the goods, replacing one overwintering group with another, personifying scientific research and management, and even reconstructing polar celebrities' old deeds appear on screen as conventional procedures, generated for and by an entity that has been in existence for a long time. Kapuściński actually uses the word 'routine', when the station's working schedule is disrupted by Norwegian tourists. Once they are gone, the narrator says: 'Back to customary, routine work' (23:17). Yet, all in all, tourist visits happen regularly enough to qualify as a kind of typical occurrence, too. Symptomatically, the film ends with the phrase 'Farewell, Spitsbergen – or maybe see you again, Svalbard?' (26:50), indicating that yet another (i.e., sort of replicated) Polish journey to the archipelago is likely to take place soon.

Not everyone would want to return to Svalbard after a spell there. However, there are those who have caught the so-called 'Svalbard bug', or 'Arctic bug' (i.e. suffer from an inexplicable urge to come back to Svalbard, which will apparently haunt them forever). Such individuals would rather like to revisit the place, thus effectively participating in a routinization of Svalbard experience. Film-wise, the Svalbard bug phenomenon was first mentioned by Siedlecki in Rollny's biopic about him. In it, he ascribes the notion of Svalbard bug to Norwegians, and says that he has been affected by the bug himself and is not ashamed of it (see 18:38-19:00). Wyrzykowski discusses the Svalbard bug too, e.g. in *Rok w Hornsundzie*, which uses a quote from Centkiewicz about the bug being 'contagious and dangerous'. Notwithstanding this, Wyrzykowski claims that both he and his companions have caught the bug and shall miss the archipelago when they get home to Poland (25:02-25:14).

Wyrzykowski's *Rok w Hornsundzie* is preoccupied not so much with what happened at the station in a particular year, no matter how ordinary (as Kapuściński's *Polarna Stacja Hornsund* does), but with what usually happens there, year in, year out (even though Wyrzykowski's personal experience with Svalbard in the film – and the trilogy as a whole – was limited to the 1992-93 season only). It suddenly transpires that religious rituals at Hornsund (routine again!) play an important role. At its start, *Rok w Hornsundzie* portrays a gathering of the station dwellers to mark All Saints' Day, even though there are no Polish graves on the archipelago. Near the end of the film, a Catholic Easter service can be seen, conducted by Father Wojciech Egiert (who is based in mainland Northern Norway and comes to Hornsund at least once a year, sometimes by the Governor's helicopter).

To the best of our knowledge, such scenes had not been part of any Polish documentary about Svalbard before, presumably because of Communist censorship. It is not clear when communal practices like these began at the station. Yet both episodes take place at a cross erected in 1982 in commemoration of the fiftieth anniversary of the Polish presence on Svalbard and the twenty-fifth anniversary of the station's existence, 55 so at least the rituals' location of choice cannot pre-date 1982. In 1981-83, a martial law was declared in Poland. According to Siedlecki speaking in *Polonica arktyczne* (23:50-25:35), the cross was erected as an expression of scientists' emotions caused by the law. In particular, their religious feelings were hurt at a time when Polish Communist authorities took an especially negative view of Catholicism. The cross was chosen as a symbol of the Hornsund staff's unity with the Polish nation and Catholic faith.

While the Hornsund station is the oldest and biggest Polish research outlet on Svalbard, <sup>76</sup> and has thus attracted the main media attention bordering on Horsundocentrism, it certainly is not the only one. Ever since the early 1970s, the number of Polish institutions carrying out research on Svalbard has been on the increase. <sup>77</sup> Owned by the Institute of Geophysics, the Hornsund station could not accommodate everyone. The range of Svalbard sites to conduct research at has been expanding, too. Some of these sites were located quite a distance away from Hornsund. It made perfect sense for different Polish research units to establish stations of their own. In 1971, Werenhus (aka Værenhus; or Baranówka, after the name of its founder Stanisław Baranowski, 1935-78), on Wedel Jarlsberg Land, not too far from Hornsund, got built next to the Werenskiöld glacier at the behest of Wrocław University. Four years later, the Hahut station was opened by the Nicolaus Copernicus University in Toruń at the Kaffiøyra plain on Oscar II Land, in the vicinity of the glaciers Aavatsmarkbreen and Waldemarbreen. In 1986, a station set up by the Maria Curie-

Skłodowska University (UMCS) in Lublin started functioning in the abandoned mining town of Calypsobyen in Bellsund, near Renardbreen and Scottbreen. In 2011, the Petuniabukta station in Billefjord was established by the Adam Mickiewicz University in Poznań. This is not even a complete list!

It is not surprising that these other stations, important as they have been for the scientific community, have also been captured on film. Sometimes – as in the case of *Hahut* (by Ryszard Kruk, 2022) – they have even been accorded a documentary, solely devoted to them and their inhabitants, following the example of the Hornsund station. While observing the chronological order and glimpsing occasionally into the twenty-first century, let us highlight briefly some key events in the stations' history, the way it has been reflected in some documentaries.

As far as Baranówka is concerned, Czajkowski's *99 dni na Spitsbergenie* immortalizes the moments when the station in the form of a prefab house (designed by Baranowski's wife Krystyna) was being put together by Baranowski, the electrical engineer Jan Szymański, the meteorologist Bronisław Głowicki and others (see especially 24:23-25:07). Błahij's *Zimny ląd* shows an ice pick erected at Baranówka in memory of the station's founder, who died in an accident in the Antarctic. In Szymon Kostka's *Ostatni raz* (The Last Adventure, 2011), Baranówka is filmed at the end of the 2010 summer season, while occupied by a Czech-Polish team of glaciospeleologists, led by Josef and Stanislav Řehák. The area immediately outside the house is being cleaned up and strengthened by them to protect the building from an advancing moraine.

As for Hahut, because of the fortieth anniversary of its foundation, in 2015-16 it became the subject of three documentaries, all of them enjoying a significant input from the film director and cameraman Łukasz Kajetan Pochylski. The initial research in Kaffiøyra was undertaken in 1938 by, among others, the geomorphologist Mieczysław Klimaszewski (1908-95), who published his findings twenty-two years later. The station was erected in 1975 to engage further in geological and glaciological research, as well as climate studies and soil science. The house to live in for a team of twelve students and staff, led by Professor Szupryczyński, was brought to the site on board m/s *Włókniarz*. Over 150 scientists have had a placement at Hahut since. 80

Unlike Hornsund, which is part of the South Spitsbergen National Park, Hahut is located outside the national parks' territory. This affords the Kaffiøyra station occupants an extra research freedom. The station functions only in the spring/summer season but remains open throughout the year, in case a traveller needs it as a shelter. At first it was a small house

with two rooms (a bedroom and a kitchen) plus separate buildings for a warehouse and a workshop. By 2004, up to nine people could sleep in the living quarters. However, in 2007 the station expanded considerably and can now accommodate up to fifteen people with some comfort. The station even boasts the northernmost Polish sauna, built of driftwood. However, there is still neither running water nor reliable internet on the station's premises – yet up to five satellite phones can be used for long distance communication, and several marine radios, for roaming the adjacent area.

Pochylski's Hahut trilogy consists of the shorts *Colloquium – 40 lat Stacji Polarnej UMK* (Colloquium: The 40th Anniversary of the Toruń University's Polar Station), *Dom daleko od domu* (A Home Away from Home) and *«Najdłuższy dzień życia» na Spitsbergenie* (The Longest Day of Life on Svalbard). The first of these is an eighteen-minute-long interview with the glaciologist Ireneusz Sobota, a frequent visitor to Hahut since 1996 and now its director. The second includes brief interviews with the participants of the Toruń University's 42<sup>nd</sup> expedition to Kaffiøyra, e.g. the geomorphologists Piotr Weckwerth and Katarzyna Greń; the meteorologist Patrycja Ulandowska-Monarcha; the hydrologist Marcin Nowak; and the student Michał Dziembowski (all of them speaking positively about their time on Svalbard). The third film charts the filmmakers and scientists' journey from scorching Poland to invigorating Svalbard during the midnight sun period. In the trilogy, the archipelago's airplane and helicopter vistas are additionally supplemented by a particularly spectacular drone footage, probably for the first time ever in Polish films about Svalbard.

By contrast, Calypsobyen has not been popular with filmmakers so far. Only Wyrzykowski's *Wyprawy z Hornsundu*, Kostka's *Ostatni raz* and Wojciech Puchejda's *Polskie bazy polarne na Spitsbergenie* (Polish Polar Stations on Svalbard, 2020) contain modest sequences about it – an abandoned coal mining site, formerly belonging to the Northern Exploration Company, afterwards used by trappers and now – with the Governor's permission – a UMCS research base. Petuniabukta is the youngest and photogenically unluckiest research station of them all, making a fleeting appearance only in a two-part 2017 travel vlog by Marcin Mossakowski (aka Mosak), *Spitsbergen* (Part I, 09:37-10:05).

Poles have been exploring the archipelago not just by building research bases there but also by doing sport, such as mountaineering. In 1934, Mogilnicki made a solo ascent to Raudfjellet (1016m) on Wedel Jarlsberg Land; Bernadzikiewicz, to the highest peak of Torell Land, Berzeliusfjellet (1204m); and Bernadzikiewicz and Siedlecki together, to Kopernikusfjellet (1055m).<sup>81</sup> The 'routine' decades kept this trend going. Thirty-seven years later, in *99 dni na Spitsbergenie*, Czajkowski informed viewers about scaling the summits of

five peaks. <sup>82</sup> In Bartólewska's *Polonica arktyczne*, Professor Ryszard Schramm (1920-2007) – a biologist who went to Svalbard eight times, mostly as a mountaineer (on the final occasion, at the age of seventy-four) – jokes that Kopernikusfjellet is the most Polish mountain on Spitsbergen not only because it was named after Nicolaus Copernicus but because its top has been reached by Poles several times (09:40-09:50). Together with Jerzy Piotrowski and Brzozowski's assistant Andrzej Zawada, Schramm summited Hornsundtind, the highest peak in the southern part of Spitsbergen (1433m), in 1958. Schramm did not limit his athletic pursuits on Svalbard to mountain climbing alone. In 1980 and 1983, in two attempts, together with a few companions, he successfully undertook a small boat journey around Spitsbergen, which is briefly visualized in the same film by Bartólewska, thanks to amateur camera footage by none other person than Siedlecki, who took part in the 1980 trip (23:15-23:50). <sup>83</sup>

Polish explorers have been examining Svalbard not only vertically and horizontally, as it were, but also subterraneously, by lowering themselves into ice caves beneath various glaciers in an attempt to find out how deep such caves go and what their shapes are; to chart waterways inside glaciers; and to try and establish if drainage systems of different glaciers are connected with each other (see Fig. 4). Glaciospeleology can be a useful supplement to geophysical methods, when data obtained from the surfaces of glaciers are not enough to come to a particular conclusion – but it is also an exciting if unsafe pastime<sup>84</sup> and an opportunity to film a picturesque space that has never been filmed before. The already mentioned *Zimny lqd* is a trailblazing film, in which the cameraman Kapuściński manages to take his camera deep into the glacier to produce pictures of unparalleled beauty. <sup>85</sup> As for the permanently looming danger, a scene from *Polarne lody* (Polar Ice, 1999) by Jerzy Zygmunt depicts a glaciospeleologist<sup>86</sup> emerging from a cave to say that the ice inside closed in on him but fortunately did not collapse.



Fig. 4. Glaciospeleologia (2012): Exploring Svalbard's Blue Light Cave © Szymon Kostka

Constructing bases on Svalbard and exploring it in every imaginable direction is one way for the Poles to make the archipelago their own, and thus to routinize their Svalbard experience through domestication. The codification of the history of Poles on Svalbard and its canonization by widely accessible visual means, to impress it on the audiences back home, is another way of Polonising Svalbard and advancing routinization further. Polonica arktyczne sets out to demonstrate that the breadth of Polish scientific achievements on Svalbard can partly be explained by the research tradition established by Tsarism's involuntary political exiles to Siberia – such as Jan Czerski (1845-92), Aleksander Czekanowski (1833-76) and Benedykt Dybowski (1833-1930) – who had the strength of character and the presence of mind not only to survive in (sub)polar regions but also to produce ground-breaking results to do with Siberia's topography, geology, palaeontology, etc. On Svalbard, this tradition was continued by the Polish scientists who joined the Russo-Swedish Arc-of-Meridian expedition (1898-1902), such as the biologist Aleksei Białynicki-Birula (1864-1937).87 In other words, Polish Svalbard roots actually go back for at least a century and a quarter. It is therefore hardly surprising that, after all this time, and especially in the past thirty years or so (judging by the Polish documentaries about Svalbard), quite a number of Poles have emerged caring strongly about Svalbard's natural environment. This brings us to the latest, ethical period in the Polish Svalbard documentary history.

The 1990s to the present: Global warming, female polar researchers and the ethical period

The ethical treatment of Svalbard (and the Arctic at large) implies that it is not a place which threatens humans but rather a place threatened by humans and is therefore in need of urgent protection.<sup>88</sup> Such a change of attitude has a great deal to do with the phenomenon of global warming, caused by human activity.

As is well known, air temperature on Svalbard has been lately rising six times faster than the global average. <sup>89</sup> Climate changes on the archipelago have been observed for a long time, manifesting themselves most visibly in the shrinking of glaciers, now believed to be irreversible. Ice measurements have regularly featured in Polish films about Svalbard ever since Brzozowski's 1959 *Maly reportaż*, which shows a group of glaciologists led by Professor Kosiba setting up an observation camp (consisting of several tents and crates with supplies and equipment) in the mountainous part of the Nordenskiöld glacier. Viewers are told that such measurements (also conducted at the Hans glacier) have been useful to explain climate changes.

Brzozowski's *W Zatoce* develops the topic further. 'For glaciologists, ice is a key to the secrets of the Earth' (32:20-32:23), the voice-of-God narrator states. Above the Van Keulen fjord, Różycki is pictured while 'retracing his old steps' (29:36) from twenty-five years ago (i.e. the 1934 expedition to Torell Land). He can compare the extent to which some of Spitsbergen's glaciers have receded since, owing to the global warming (29:31-29:38). The comparison is partly made with the help of Kosiba, as well as twenty-year-old photographs of a glacier terminus in Burgerbukta (01:05:40-01:05:46).<sup>90</sup>

There is no obvious ecological or apocalyptical angle in these scenes yet, however. In the 1950s-80s, Svalbard glaciers were studied by Polish scientists primarily because three quarters of today's Poland had been covered by ice once and Spitsbergen was considered 'a key to the geographical past of the Polish terrain' (according to Professor Szupryczyński speaking in the anonymous 1978 documentary *Spitsbergen*, 09:32-09:40). Even though in *99 dni* (1971) Głowicki could already be seen measuring how variations in the solar activity and atmospheric conditions correlated with glacier movements, only in *Polarna Stacja Hornsund* (1988) a warning about the dangers of the thinning ozone layer was made. The centre of the 4,5 sq km wide ozone hole near the North Pole was apparently located right above Spitsbergen, with direct consequences for its ice covers.

Of the Polish documentaries at our disposal, it was Bartólewska's *Ślad na lodzie* (A Mark on Ice, 1993) that first made explicit the connection between human activity and melting ice in the Arctic.<sup>91</sup> As a result of industrial emissions, which the film insisted should be stopped, a kind of 'gigantic greenhouse has surrounded Planet Earth' (02:56-03:00) and

affected the Arctic regions particularly strongly. The film's two principal case studies are Svalbard and Franz Josef Land, with Svalbard serving as a prediction model. 'Spitsbergen today is Franz Josef Land tomorrow' (21:22-21:25), the voiceover claims. According to the narrative (13:56-14:08), since the start of the twentieth century the ice cover on Spitsbergen has decreased by 6 per cent, or by 2 500 sq. km., and the process keeps accelerating. Warmer waters around Svalbard have encouraged different species to come and settle where they have not been seen before. For example, grey shrimps now keep company with pink shrimps. Cod and redfish (usually found in the North Atlantic) have been landed by trawlers' nets around Spitsbergen more and more often.

Also for the first time in Polish documentaries about Svalbard, underwater creatures (crabs, snails, brittle stars, catfish, ribbon worms, etc.) have been filmed up close.

Bartólewska lavished praise on her cameramen, Andrzej Galiński and Wojciech Ostrowski:

We filmed *Ślad na lodzie* on [celluloid] tape, which is not like now, when you press a button and after a while take turns with your colleagues to keep shooting for hours. Tape mostly means brief shots, you'd need to have an amazing eye for what can be done really quickly, because tape is worth its weight in gold, there is not much of it and it is transported in cans containing five or ten minute spools.<sup>92</sup>

Another first for Ślad na lodzie is depicting representatives of Arctic fauna and flora as linked together into a communal ecosystem: birds eat the organisms that live in the water; birds' droppings contribute to the formation and richness of vegetation, which the reindeer feed on; and so forth. An Arctic fox on the lookout for skua eggs can be seen again, just like in the Polish films about Svalbard in the late 1950s – early 1960s. Yet now the skua and the fox are presented not simply as noteworthy species but as links in a food chain (22:36-22:53). The film asserts: even if just one species were to disappear in the wake of human-induced climate change, it can lead to an ecological disaster. In other words, during the ethical period, the 'animals in Eden' mode (as per Kustusch's classification) morphs into 'endangered species in fragile Eden'. As the archaeologist Marek Jasiński of the Norwegian University of Science and Technology in Trondheim explains it on camera in Ślad na lodzie, in the past humans damaged the environment, too, but not as disproportionately as they do so these days (00:49-01:10).

To the best of our knowledge, the intertwined themes of industrial pollution, melting ice and endangered ecosystems on Svalbard, important as they are, had not been developed in Polish cinematography further, in earnest, until twenty years later, in *Maly alczyk – wielka sprawa* (Little Auk – Big Deal, 2013) by Adamkiewicz and Łeska. <sup>93</sup> By then global warming

had progressed from bad to worse. Little auks were a staple, albeit episodic, feature of several films by Puchalski and Brzozowski, partly thanks to the species' comical, penguin-like features. Half a century passed – and little auks suddenly took centre stage, for a very serious reason. According to the onscreen testimony of the professional auk watchers Professor Dariusz Jakubas and Dr Katarzyna Wojczulanis-Jakubas, the vanishing glaciers and coldwater streams will inevitably result in the disappearance of the plankton that little auks consume. There will not be enough food for hundreds of thousands of auks coming to Svalbard to breed every spring. The auk numbers will dwindle, which will lead to a shortage of natural fertilizer for Svalbard's tundra. This will reduce the sustenance rations for reindeer, struggling to feed themselves as it is. And so the chain reaction will continue, with devastating consequences on a wide scale, as the saying 'for want of a nail' goes.

Obviously, the Arctic climate change concerns more than just plankton, little auks and reindeer. Another commentator in *Mahy alczyk*, Professor Węsławski, reminds us that floating ice (when Svalbard had a great deal of it) hosted shellfish eaten by seals. Seals, in turn, were eaten by polar bears. This food chain is now under a serious threat. With the disappearance of shellfish, polar bears (among other species) will disappear, too, unless they become omnivorous. Yet another expert, Professor Lech Stempniewicz, remarks in the film that polar bears have recently started eating auk and seagull eggs (quite literally leaving no stone unturned in the process, as the eggs are often hidden under the stones) but this is an extreme measure which will not help the bear population long-term.<sup>94</sup>

Maly alczyk's narrator expresses hope that there will still be a place for auks on Svalbard, even if the ice melts away completely and there is no plankton left in the sea. What will happen to auks remains to be seen but the ice does not seem to have much of a chance. Węsławski explains why (15:20-15:41). The melting Arctic changes its dominant colour scheme from white to dark. The dark colours absorb sunrays instead of repelling them and the warming process accelerates.

Mały alczyk is a remarkable work not only because of its content. It also memorably portrays underwater micro-objects, such as plankton, thus going a few steps further than even Galiński and Ostrowski's sophisticated sub-aquatic camerawork in Ślad na lodzie. It lends credence to Marta Głuchowska's declaration (Mały alczyk, 35:43-36:07) that plankton may appear insignificant from a food chain's point of view but it is impossible not to fall in love with its elegant movements and varied colours. Furthermore, a stop-motion computerenhanced technique is employed to highlight the real-life footage of a seagull that attacks and kills a fledgling auk (the fact that Mały alczyk's cameraman Tomasz Michałowski has

managed to capture a moment like this would likely have made Puchalski jealous). It is still a bird-eat-bird world out there, just as Puchalski recorded it in *Wyspa piór i puchu* and *Śpiewające góry*, only now it is visualized by a partial recourse to advanced software.

Another film about the climate change on Svalbard, Kuba Witek's *Ruch lodu* (Ice Motion, 2019),<sup>95</sup> utilizes footage normally unavailable to filmmakers, from a drop-camera and an underwater robot at the Polish research vessels Oceania and Magnus Zaremba, which scrutinize the fjord bottom to detect any organisms that may have entered places left vacant by the withdrawing glaciers. A related topic of plastic waste is invoked here, too, as it is plastic that can transport to Svalbard organisms from the warmer regions. According to the film, the melting Arctic is likely to produce shorter winters and dramatic weather phenomena, e.g. more avalanches and landslides, torrential rains leading to floods, and rising sea levels.

Among future victims of climate change, *Ruch lodu* specifically names polar bears (which live not only on Svalbard, of course, but across the Arctic). Why are they especially important? The polar bear is a symbol of the Arctic (arktos meaning "bear" in Greek). With polar bears' demise, the region will lose a substantial part of its identity. The polar bears' current circumstances on Svalbard are discussed in the already mentioned film *Hahut*, mostly set at the Polish research station on Kaffiøyra but also at Longyearbyen, during the COVID-19 pandemic. 96 The film demonstrates clearly that the hunger inflicted on polar bears by the melting ice is making them more aggressive towards humans. An early scene shows how a helicopter is trying to scare off several polar bears away from Longyearbyen, where they are looking for food.<sup>97</sup> A little later it is reported that one of these bears has killed a man in a tent a mere mile away from where the Polish researchers have been quarantining in order to get a permission to proceed to Hahut to conduct their annual observations. 98 In this context, two film sequences acquire a particularly ominous significance: 1) Professor Sobota teaching the new arrivals at Hahut how to fire a warning shot to a polar bear (aiming the signal pistol in front of the animal, not behind, so that it runs away from you when scared, not towards you); and 2) Sobota repeating a line by the Polish hip-hop band Molesta Ewenement: 'Does it really matter where death comes from?'

Death provides a continuous backdrop to *Hahut*. To add a few more illustrations, the sense of mortality in the film stems not only from the general atmosphere of COVID-19, which necessitated strict isolation measures on the archipelago (thinly populated as it is), but also from a fatal accident when a reindeer's horns got stuck in a fishnet washed onto the shore – and the animal died of starvation.<sup>99</sup> Another example concerns the doomed glaciers. To make the viewer empathize with them (as part of the strategy to promote an ethical

attitude to the environment), *Hahut* anthropomorphizes them. This is achieved by adopting a perspective to do with an irretrievable loss: some glaciers last longer than others yet every single one of them will ultimately meet its end (44:00-44:14). The film concludes with an apocalyptic animation sequence counterpointing several quotes from a poetry collection by Marcin Ostrychacz (2020), which can be summarized thus: there will be less and less of wild nature but more hunger and madness – and it's all mankind's fault (44:30-47:10). 101

We cannot help noticing that the rise in Polish scientists' awareness of the lethal dangers of climate change on Svalbard roughly coincides with the increase in the presence of Polish female scientists there. In 1956-57 (not to mention the 1930s), no women took part in the Polish expeditions to Spitsbergen. The men stationed at and near Hornsund must have missed women rather badly. This is evident from the silhouette of a female torso that expedition members assemble from food bits on the dinner table in Brzozowski's *W Zatoce* (01:10:33-01:10:38, see Fig. 5). In those days – and even much later, not only among polar explorers but also in mountaineering circles – the view prevailed that 'women's participation in expeditions is rather disruptive and widens the ground for possible conflicts'. <sup>102</sup>

A graduate of the Faculty of Navigation at the Maritime University of Szczecin, Bartólewska in the late 1980s wanted to embark on a doctoral research project that would involve 'a year's stay at Hornsund, but was told that it was out of the question because women were not allowed to overwinter, as they were in general conflict-prone and no such option existed for them at all'. The first female scientist to overwinter at Hornsund was Danuta Bednarek, a geologist, and this happened only in the 1995-96 season, during the eighteenth polar expedition of the Polish Academy of Sciences, under the leadership of Jacek Bednarek, Danuta's husband and also a geologist by training. By then, it must have been decided by powers-that-be that 'it is not women's participation in a polar expedition but the level of culture of male participants that is a problem' (to quote Baranowski, who held such a view on the so-called 'women's issue', already in the early 1970s if not before). The second se



Fig. 5. W Zatoce Białych Niedźwiedzi (1961): Women, where are you? © WFO

Needless to say, women began to come to Polish research stations for shorter periods (spring and summer expeditions) much earlier than the mid-1990s. Suffice it to mention Różycki's supervisee Zofia Michalska (1927-2007; of the Warsaw University) and Siedlecki's wife Anna (of the Mining Academy in Kraków), who went to Hornsund in 1958 and 1960 respectively. A chronological list of Polish women conducting research on Svalbard from then onwards can be found here: <a href="https://polarniczki.pl">https://polarniczki.pl</a> (accessed 22 June 2023; it comprises over 370 individuals in total since 1958 if the expeditions to the Antarctic are added). An added of the Mining Academy in Kraków).

Even in the early to mid-1980s, when many women had already done their work at different Polish research stations on Svalbard, received wisdom in Poland could still reassign their agency as polar researchers to men. *Zimny lqd* is a case in point. In the middle of the film (14:50-15:25) one could see Wiesława Krawczyk, a holder of an MSc degree in chemistry, on her third visit to Svalbard in 1983, testing water samples at a lab she had set up at Baranówka. Yet the voiceover read by the famous media presenter Jerzy Rosołowski (1930-2001) informs the viewer that this is 'magister Wiesław Krawczyk', at complete variance with the person's womanly appearance. 'While reading the text about the harsh polar conditions, frosts, snowstorms and polar bears, he must have concluded that a mistake had probably been made in adding letter "a" to the male name' 107 – and took the initiative to drop the feminine ending. To avoid something similar ever happening again, Wiesława Krawczyk has started using her second name (Ewa) in addition to her first.

Curiously, the increased female presence at the Polish stations on Svalbard did not seem to alter much the traditional gender division of labour as far as housework was concerned. During her first sojourn on Spitsbergen in 1979, Krawczyk, in addition to her duties as a researcher, got more than her fair share of chores at Baranówka, e.g. had to roast a duck and sew curtains, because of the perception that women could do such things better than men. 108 This perception, however, was at odds with reality and must have occasionally served as an excuse for men to renege on their household obligations. When the Hornsund station was in its infancy and all the Polish researchers there were male, the following process was observed: while 'cooking their own meals, cleaning up their dwellings and doing the dishes, scientists learnt to appreciate the labours of their beloved female slaves [...] and became excellent housekeepers'. 109 Yet these housekeeping skills would not necessarily transfer automatically to the next generations of male expedition members, when expeditions became unisex. For example, in *Dom daleko od domu*, almost sixty years after Hertel's observation, Dziembowski described house rules at Hahut thus: 'everyone does what they can do best; typically, [men] are busy with resolving technical problems, while women mostly deal with household chores' (11:11-11:26).

In a parallel development, Polish female researchers on Svalbard paved the way for Polish female filmmakers, who have been coming to the archipelago from time to time since the early 1990s. It was only a matter of time when a film would appear specially devoted to distinguished Polish women, who have left a remarkable but insufficiently known legacy as polar researchers and sometimes even as heads of expeditions and research stations. Dagmara Bożek and Kuba Witek's *Polarnyczki* (Ant/Arctic Women, 2023) focuses, apart from Krawczyk, on the ecologist Anna Krzyszowska Waitkus, the hydrologist and poet Joanna Pociask-Karteczka, the biotechnologist Anna Kołakowska and the botanist Maria Agata Olech, all of whom had an illustrious career owing to the time spent at the Polish polar research bases, either on Svalbard or in the Antarctic, or both. 110

## Conclusions

To complete our observations and categorisation of the main trends detectable in the available Polish documentaries about Svalbard over approximately ninety years, two principal questions have to be discussed: 1) is there anything in Polish documentaries about Svalbard that makes them distinct from similar films made in other countries? and 2) what would be desirable to find in the future Polish films about Svalbard?

It is obvious that the thematic evolution of Polish documentaries about Svalbard largely coincides with the general trajectory of many international films about the Arctic, from conquering and exploring an unfamiliar and hostile terrain to valuing and protecting a unique and vulnerable environment (both tendencies sometimes turn out to be complementary rather than mutually exclusive). In this context, Svalbard's specifics predominantly consists of ignoring the otherwise very important issues to do with indigenous population, as there has never been one on the archipelago.

Above and beyond this, it is possible to find purely Polish features in the documentaries under scrutiny, if we compare them first and foremost to Norwegian and Soviet/Russian documentaries about Svalbard, i.e. those filmed in the two countries with the longest history of continuous joint presence on the islands. For Russian documentaries, the question of the archipelago ownership has been essential, as some of them insisted that Pomors had discovered Svalbard before Barents and therefore Russia is somehow entitled to a special claim to this land.<sup>111</sup> Norwegian documentaries are as a rule relaxed about the ownership issue and often take it for granted, as the international law is indisputably on Norway's side, thanks to the Svalbard Treaty of 1920. As for Poland, it duly asserts priority wherever Polish cartographers were the first to chart sections of Spitsbergen – but Polish names on its map have never amounted to a territorial claim. Also, in addition to polar research, both Norway and Russia/the USSR have engaged in mining coal on, or fishing near, Svalbard, or developing tourism there, and therefore inevitably treat Svalbard as an economic resource, in life and in cinematic representations. By contrast, Poland did little else but research on the archipelago, so Polish documentaries by and large do not deviate from this phenomenon.

As a sum of its constituent parts, Polish documentaries about Svalbard present a concise user-friendly history of the Polish Arctic research, with an added value of highlighting women's role in it, as well as leaving behind a visual record of deceased scientists and disappearing species. What is more, quite a few Polish filmmakers involved in documentaries about Svalbard – such as Czajkowski, Bartólewska, Sławomir Swerpel and Wiktor Niedzicki – obtained a science degree before moving into mass media, which gave them an advantageous insight into Svalbard-related matters. It would be ideal if, despite the formidable copyright obstacles, this composite legacy is restored, digitized, subtitled in English and placed in a single online repository for unrestricted public use.

Polish documentaries about Svalbard have not been entirely devoid of deficiencies but even those deficiencies bear a specific national mark, as Professor Węsławski (a frequent participant in Svalbard-related film projects since at least the early 1990s) communicates in his private message to us. According to him, Polish films about Svalbard are usually characterized by three features: 1) low budget, 2) lack of time, and 3) lack of a good story. As a result, such films are based on a fairly randomly selected narrative and average quality photography, made with a rather mediocre technical equipment (recently, good effects have been achieved thanks to the use of drones). With a budget of several thousand PLN or so for a twenty-minute film, a run-of-the-mill camera and one week at his or her disposal, a Polish filmmaker cannot produce a first-class nature documentary, even in a very attractive location. Technical and financial deficiencies can be surmounted if the film concentrates on a coherent story that will interest the viewer. Most often, however, films are made "about nature", that is, about everything and nothing in particular. The reason is rational, as the film crew (usually the cameraman and the director), upon their arrival in the Arctic, try to record everything they see, hoping that it will prove useful. *Maly alczyk* is an exception.

This may well be so, but it is also undeniable that, despite their budgetary limitations and temporal restrictions (which, however, are not fully applicable in the cases of Puchalski, Brzozowski and Wyrzykowski), Polish documentaries about Svalbard have jointly managed to punch well above their weight. The daring spirit of the Polish polar explorers of the 1930s-1950s lives on, in particular in the speleoglaciological pursuits of the 1980s-2010s, and would not have made the same impact without its onscreen exemplification.

How would Polish films about Svalbard shape up in the nearest future, given more time and money? Would a comprehensive and systematic archival search be undertaken to try and locate more overlooked Polish films about Svalbard? Would a multipart series about the history of Polish polar research be attempted, with an ample use of archival footage and (yet unrecorded) reminiscences of the late Communist / early post-Communist generations of Polish scientists and a special focus on science diplomacy during the Cold War?<sup>115</sup> Would a full-length thriller or two, shot in authentic Svalbard locations, be feasible? It is hard to predict what exactly will happen. One thing is certain, however: Polish filming on and about Svalbard will continue for as long as there are any Poles on the archipelago.<sup>116</sup>

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<sup>&</sup>lt;sup>1</sup> Lilya Kaganovsky, Scott MacKenzie and Anna Westerståhl Stenport, 'Introduction: The Documentary Ethos and the Arctic', in L. Kaganovsky, S. MacKenzie and A. Westerståhl Stenport (eds), *Arctic Cinemas and the Documentary Ethos*. Bloomington, 2019, pp. 1-28 (p. 2).

http://www.kinokultura.com/2022/76r-archipelago.shtml [accessed 19 June 2023]. Setting the action in one location while filming it in quite another is known as 'location substitution' (see Scott MacKenzie and Anna Westerståhl Stenport, 'What Are Arctic Cinemas?', in S. MacKenzie and A. Westerståhl Stenport (eds), *Films on Ice: Cinemas of the Arctic*, Edinburgh, 2015, pp. 1-28 (p. 6).

<sup>&</sup>lt;sup>2</sup> In this article, the term Svalbard is used when speaking about the archipelago as a whole. The term Spitsbergen is applied only to a specific island, i.e. one part of the archipelago.

<sup>&</sup>lt;sup>3</sup> See Jan Marcin Węsławski, 'Polar Research in Public Discourse: Setting the Stage', *Oceanologia*, 62, 4, part B, 2020, pp. 634-36.

<sup>&</sup>lt;sup>4</sup> We are particularly grateful to Professor Jan Marcin Węsławski, a marine biologist, and Ms Iwona Bartólewska, a film director, both veteran Svalbardians, for sharing their insights with us, which shall be quoted as and when appropriate.

<sup>&</sup>lt;sup>5</sup> E. O. Wilson, Consilience: The Unity of Knowledge. New York, 1998, p. 29.

<sup>&</sup>lt;sup>6</sup> We shall deal with this film in more detail later in this article.

<sup>&</sup>lt;sup>7</sup> For more on this film, see A. Rogatchevski, 'Screen-testing Arctic Governance: *Zero Kelvin* (1995) and *How I Ended This Summer* (2010)', in Kari Aga Myklebost and Stian Bones (eds), *In the North, the East and West Meet: Festschrift for Jens Petter Nielsen*. Stramsund, 2019, pp. 249-66.

<sup>&</sup>lt;sup>8</sup> For details, see A. Rogatchevski, 'Svalbard on the (Post-)Soviet Screen', *Nordlit*, 45, 2020, pp. 150-74, as well as his review of *Arkhipelag* in *Kinokultura*, 76, 2022,

<sup>&</sup>lt;sup>9</sup> Eva La Cour, 'Opening Insights: Presenting, Producing and Living Arctic Cinemas', in K.-P.R. Hart, (ed.), *Arctic Cinemas: Essays on Polar Spaces and the Popular Imagination*. Jefferson, NC, 2021, pp. 9-22 (p. 10).

<sup>&</sup>lt;sup>10</sup> MacKenzie and Westerståhl Stenport, 'What Are Arctic Cinemas?', pp. 12, 13, 14, 16.

<sup>11</sup> See <a href="https://www.fondation-jeromeseydoux-pathe.com/document/au-pays-du-soleil-de-minuit/5fdd2ac3af99ca9e7f27eec8?pageId=60cb01f76fb6ab1f3a2a5382&filtrerParRalisateur%5B0%5D=Nédelec,%20Jean&q=jean%20nedelec&pos=1 [accessed 20 June 2023].

<sup>&</sup>lt;sup>12</sup> See https://www.nb.no/items/7d2ef9684c2ee9eee0c08d8bee523d74 [accessed 20 June 2023].

<sup>&</sup>lt;sup>13</sup> See <a href="https://www.ceskatelevize.cz/porady/1095875447-cestomanie/203562260100012/">https://www.ceskatelevize.cz/porady/1095875447-cestomanie/203562260100012/</a> [accessed 20 June 2023].

<sup>&</sup>lt;sup>14</sup> Jared Lipworth, an Emmy-winning producer of science programmes at the Thirteen/WNET and National Geographic channels, as quoted in D. Pineda, 'Editing a Science Documentary: More Than Words (Literally!)', *Science Editor*, 27, 2, 2004, p. 47.

<sup>&</sup>lt;sup>15</sup> See Christopher Michael Kustusch, A Paradigm Shift for the Science Documentary: A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Fine Arts in Science and Natural History Filmmaking. Montana State University, Bozeman, MT, 2007, pp. 34-36.

<sup>&</sup>lt;sup>16</sup> See, for example, Piotr Köhler, 'Polska wyprawa na Spitsbergen w 1934 roku', *Kwartalnik Historii Nauki i Techniki*, 60, 2, 2015, pp. 117-140 (p. 124).

<sup>17</sup> See Czesław Centkiewicz, *Wyspa mgieł i wichrów*, Warsaw, 1934; and Stanisław Siedlecki, *Wśród polarnych pustyń Svalbardu*, Warsaw, 1935. For more on the 1932-33 stay at Bjørnøya, see also Piotr Köhler, 'Pierwsza polska wyprawa polarna', *Kwartalnik Historii Nauki i Techniki*, 58, 4, 2013, pp. 43-59; and Jan Szupryczyński, 'Pierwsza polska wyprawa polarna', *Przegląd Geograficzny*, 85, 1, 2013, pp. 123-130.

- <sup>18</sup> A map of the area was duly produced and other objectives reached. For more on the expedition, see Stanisław Siedlecki. *Wśród polarnych pustyń Svalbardu*, Warsaw, 1935; Stefan Zbigniew Różycki, *Wśród lodów i skal: Ze wspomnień uczestnika polskiej wyprawy polarnej na Ziemię Torella* (*Spitsbergen 1934 r.*), Warsaw, 1959; and Jan Szupryczyński, 'Pierwsza polska wyprawa polarna na Spitsbergen', *Przegląd Geograficzny*, 87, 1, 2015, pp. 167-178.
- <sup>19</sup> Piotr Köhler, 'Polska wyprawa na Spitsbergen w 1934 roku', p. 123. All translations into English are ours.
- <sup>20</sup> Known, among other publications, for a book about Iceland (see Ferdynand Goetel, *Wyspa na chmurnej północy*, Warsaw, 1928).
- <sup>21</sup> See Köhler, 'Polska wyprawa na Spitsbergen w 1934 roku', p. 130.
- <sup>22</sup> See 'Polska wyprawa polarna na Spitsberg sfilmowana', *Wiadomości Filmowe*, 24, 15 December 1935, p. 17; and 'Polska wyprawa polarna na Spitzberg', *Kurjer Warszawski: Wydanie wieczorne*, 352, 23 December, p. 14.
- <sup>23</sup> A Polish national flag had actually been erected first on Bjørnøya on 3 May 1933, to celebrate the Polish Constitution Day, see Agata Lubowicka, 'Jak dołączyć do grona "państw kulturalnych": Historia wizualna pierwszej polskiej ekspedycji arktycznej w dwudziestoleciu międzywojennym', in D. Skotarczak and J. Szymala (eds), *Okno na przeszłość: Szkice z historii wizualnej*, vol. 2, Kraków, 2020, pp. 35-70 (pp. 52, 54, 64).
- <sup>24</sup> Enough of the film has survived, however, to classify it as a combination of the 'illustrated lecture' and 'scientist as explorer' subgenres, to use Kustusch's taxonomy.
- <sup>25</sup> The expedition team also included Bernadzikiewicz. During its course, the three explorers crossed the island of Spitsbergen on skis, without dogsledding. For more on the expedition, see Stanisław Siedlecki, 'Crossing West Spitsbergen from South to North', *Norsk Geografisk Tidsskrift*, 7, 2, 1938, pp. 79-91; and Piotr Köhler, 'Druga polska wyprawa na Spitsbergen w 1936 roku', *Kwartalnik Historii Nauki i Techniki*, 61, 4, 2016, pp. 135-143.
- <sup>26</sup> See 'En polsk film om Svalbard', *Morgenposten*, 18 September 1936.
- <sup>27</sup> See E. Beyfuss and A. Kossowsky (eds), *Das Kulturfilmbuch*, Berlin, 1924; W. Uricchio, 'The Kulturfilm: A Brief History of an Early Discursive Practice', in P. Cherchi Usai and L. Codelli (eds), *Before Caligari: German Cinema*, *1895–1920*, Pordenone, 1990, pp. 356–378; and U. Döge, *Kulturfilm als Aufgabe: Hans Cürlis (1889–1982)*, Potsdam, 2005.
- <sup>28</sup> Olga Sarkisova, 'The adventures of the *Kulturfilm* in Soviet Russia', in Birgit Beumers (ed.), *A Companion to Russian Cinema*, Chichester, 2016, pp. 92-116 (p. 93).

<sup>&</sup>lt;sup>29</sup> For more, see B. Sørenssen, 'Thor Iversen and Arctic Expedition Film on the Geographical and Documentary Fringe in the 1930s', in E. Frisvold Hanssen and M. Fosheim Lund (eds), *Small Country, Long Journeys: Norwegian Expedition Films*, Oslo, 2017, pp. 116-135.

<sup>&</sup>lt;sup>30</sup> For a fuller list, see Köhler, 'Polska wyprawa na Spitsbergen w 1934 roku', pp. 132-34.

<sup>&</sup>lt;sup>31</sup> For more on it see J. Szymala and A. Rogatchevski, 'Svalbard w filmach polskich z lat 30. XX wieku', *Kwartalnik filmowy*, 112, 2020, pp. 161-80.

<sup>&</sup>lt;sup>32</sup> See Czesław Centkiewicz, Znowu na Północy: Kartki z podróży na Wyspę Niedźwiedzią i Spitzbergen w roku 1936, Warsaw, 1937.

<sup>&</sup>lt;sup>33</sup> Statsarkivet in Tromsø, 'Norsk Polarinstitutt (med forløpere), 130, folder: Utenlandske ekspedisjoner Svalbard 1932-1933)'. See also the anonymous 'Wyprawa polskiego uczonego na ocean Lodowaty', *Wiarus*, 24, 1937, p. 584; and Czesław Centkiewicz, *Biała foka*, Warsaw, 1938, p. 15.

<sup>&</sup>lt;sup>34</sup> For more on it, see, for example, Piotr Köhler, 'Polska wyprawa na Spitsbergen w 1938 roku', *Kwartalnik Historii Nauki i Techniki*, 63, 2, 2018, pp. 7-27.

<sup>&</sup>lt;sup>35</sup> Köhler, 'Polska wyprawa na Spitsbergen w 1938 roku', p. 21.

<sup>&</sup>lt;sup>36</sup> Ibid., p. 23.

<sup>&</sup>lt;sup>37</sup> For more on Siedlecki's *vita*, see Piotr Köhler, 'Stanisław Siedlecki (1912–2002) – polarnik, taternik, geolog: Stulecie urodzin', *Kwartalnik Historii Nauki i Techniki*, 58, 3, 2013, pp. 61-80.

<sup>&</sup>lt;sup>38</sup> For more on the history of the station and expedition, see Stanisław Siedlecki, *Dom pod biegunem*, Warsaw, 1964.

<sup>&</sup>lt;sup>39</sup> See Krzysztof Birkenmajer, '40-lecie polskiej stacji naukowej w Hornsundzie na Spitsbergenie (1957-1997)', *Biuletyn polarny*, 5, 1997, p. 57.

<sup>&</sup>lt;sup>40</sup> Professor Wesławski's personal communication.

<sup>&</sup>lt;sup>41</sup> For more on him, see M. Hendrykowski, 'Jarosław Brzozowski', in K. Mąka-Malatyńska and J. Lemann-Zajiček (eds), *(Nie)zapomniani dokumentaliści*, Łódź, 2020, pp. 9-25.

<sup>&</sup>lt;sup>42</sup> For more on this, see Köhler, 'Stanisław Siedlecki (1912–2002)', pp. 64-65; and J. Szymala and A. Rogatchevski, 'Filmowe portrety Stanisława Siedleckiego (1912-2002) na tle Svalbardu: Fragmenty wizualnej historii nauki', *Kwartalnik historii nauki i techniki*, 66, 3, 2021, pp. 123-42 (pp. 127-29).

<sup>&</sup>lt;sup>43</sup> See J. L. Jasnorzewski, *Spitsbergen bez retuszu*, Kraków, 2009.

<sup>&</sup>lt;sup>44</sup> See Anna Wanda Grzymała Siedlecka's email to Jacek Szymala of 2 March 2021.

<sup>&</sup>lt;sup>45</sup> On him, see, for instance, M. Łukowski, 'Włodzimierz Puchalski', in M. Łukowski (ed.), *Osobowość twórcza – film oświatowy*, Łódź, 1982, pp. 1–4; and J. Szymala and A. Rogatchevski, 'Svalbard w filmach polskich z lat 50. i 60. XX w: Perspektywa geografii wizualnej', *Prace i Studia Geograficzne*, 67, 1, 2022, pp. 45–60.

<sup>&</sup>lt;sup>46</sup> Janusz Czecz, 'Spitsbergen', Film, 42 (515), 1958, p. 13.

<sup>&</sup>lt;sup>47</sup> Ibid. See also R. Teyszerski, 'Maki kwitna na Spitzbergenie', *Ekran*, 1, 1959, p. 16.

<sup>&</sup>lt;sup>48</sup> W. Puchalski, 'Tam, gdzie zwierzęta nie boją się ludzi', *Film*, 3 (476), 1958, pp. 8–9, 15 (p. 9).

<sup>&</sup>lt;sup>49</sup> See Puchalski, 'Tam, gdzie zwierzęta', p. 15. Dr Maciej Seweryn Zalewski (1932-2019), later head of the Department of Sea and Polar Research at the Institute of Geophysics at the Polish Academy of Sciences, admitted that he was the guilty party (see Wyrzykowski's 1986 film *Polarne wyprawy Włodzimierza Puchalskiego* (Włodzimierz Puchalski's Polar Travels; 08:15-08:48)).

<sup>&</sup>lt;sup>50</sup> See Puchalski, 'Tam, gdzie zwierzęta', p. 9.

<sup>&</sup>lt;sup>51</sup> See J. Hertel, 'Byłem na Spitzbergenie', *Ekran*, 1, 1958, p. 5.

<sup>&</sup>lt;sup>52</sup> See 'To Polakker filmer og skriver bok om Svalbard: Kort opphold i Tromsø før reisen nordover', *Nordlys*, 6 June 1958, p. 1.

<sup>&</sup>lt;sup>53</sup> See Köhler, 'Polska wyprawa na Spitsbergen w 1938 roku', pp. 20-21, 23.

<sup>&</sup>lt;sup>54</sup> Repeatedly so, see also Śpiewające góry, Szpicbergi, Na dalekiej północnej wyspie and W Zatoce białych niedźwiedzi.

<sup>&</sup>lt;sup>55</sup> Puchalski, 'Tam, gdzie zwierzęta', p. 15.

<sup>&</sup>lt;sup>56</sup> On *gleboruchomierz*, see J. Kołodziej, 'Wspomnienie o profesorze dr. hab. dr. h. c. inż. Stanisławie Bacu', *Woda-Środowisko-Obszary Wiejskie*, 12, 2, 2012, pp. 411-20 (p. 414).

<sup>&</sup>lt;sup>57</sup> See Czecz, 'Spitsbergen'.

<sup>&</sup>lt;sup>58</sup> See Teyszerski, 'Maki kwitna'.

<sup>&</sup>lt;sup>59</sup> See Köhler, 'Stanisław Siedlecki (1912–2002)', p. 76.

<sup>&</sup>lt;sup>60</sup> For more on *Na białym szlaku* and its reception, see M. Hendrykowski, 'Na białym szlaku: Zapomniany film o wojnie', *Images: The International Journal of European Film, Performing Arts and Audiovisual Communication*, 26 (35), 2019, pp. 103–115.

<sup>&</sup>lt;sup>61</sup> For more on glaciospeleology as both science and leisure, see L. Piccini and A. Romeo, 'The Birth of Glaciospeleology', in G. Badino, A. De Vivo and L. Piccini (eds), *Caves of Sky: A Journey in the Heart of Glaciers*, Treviso, 2007, pp. 59-69; and Szymon Kostka's documentary *Glaciospeleologia* (2012). An active glaciospeleologist himself, Kostka self-reflects on his progress from speleology to glaciospeleology thus: "I am one of those typical speleologists who simply must get into a cave if they see one. […] When you see an ice cave you fall in love with them and cannot get back to the ordinary caves anymore", see Katarzyna Dąbkowska's *Gorączka polarna* (The Arctic Syndrome, 2009), 01:41-01:51, 01:53-02:02.

<sup>&</sup>lt;sup>62</sup> Hundreds of Polish scientists have been trained at Hornsund over the years.

<sup>&</sup>lt;sup>63</sup> See respectively the film *Spitsbergen* (1978), whose director is not named, and *Polarna Stacja Hornsund* (The Polar Station at Hornsund, 1988) by Bolesław Kapuściński (1949-2018).

<sup>&</sup>lt;sup>64</sup> See, for example, *Alina i Czesław Centkiewiczowie* (1980) by Jadwiga Zajiček and *Jak tam jest* (What It's Like; also 1980) by Andrzej Bednarek.

<sup>&</sup>lt;sup>65</sup> See, for instance, Wanda Rollny's *Stanisław Siedlecki* (1988), which consists of an interview with the eponymous protagonist, interspersed with fragments from *Do ziemi Torella* and Brzozowski's material.

<sup>&</sup>lt;sup>66</sup> See, for example, the aforementioned biopic by Wyrzykowski, *Polarne wyprawy Włodzimierza Puchalskiego*, illustrated by many Puchalski-filmed sequences, as well as the anonymous *Spitsbergen* (1978), in which a wedding ring (11:38-11:42) instead of Puchalski's matchstick (in *Wśród gór i dolin*) is put next to Svalbard's blossoming flowers to demonstrate their actual size.

Since the opening of the Longyearbyen airport in the mid-1970s, it became possible to travel to Svalbard by regular passenger aircraft. The airport received international flights from Moscow and Murmansk, while the local routes to and from the Soviet mining settlements of Barentsburg and Pyramiden had already been served by helicopters of their own, in operation since 1961. As citizens of the Soviet bloc, Polish scientists were permitted to avail themselves of the Moscow-Longyearbyen-Barentsburg-Hornsund flight itinerary (see, for example, W. E. Krawczyk, 'Najpiękniejsze miejsce na Spitsbergene', in K. Migała, J. Pereyma and J. Piasecki (eds), *Magiczne miejsce 'Baranówka': Zbiór wspomnień w 40-lecie stacji polarnej im. Stanisława Baranowskiego na Spitsbergene*, Wrocław, 2011, pp. 49-64 [pp. 53, 57]), which consequently reduced the number of cinematic accounts of their arrivals to Hornsund by boat, and increased those by helicopter, providing some spectacular aerial shots.

<sup>&</sup>lt;sup>68</sup> Just like Brzozowski and Puchalski, Wyrzykowski put together several films from the footage he had taken during his time on Svalbard.

<sup>&</sup>lt;sup>69</sup> The topic of postal communications between Poland and Hornsund is touched upon in *Pocztówka ze Spitsbergenu, czyli oczarowanie* (A Postcard from Spitsbergen, or Under the Spell, 1975), the tenth episode in a TV series called *Czterdziestolatek* (The Forty-Year Old). Even though Svalbard itself is not shown in the episode, we include it in our inventory because of its subject-matter.

<sup>&</sup>lt;sup>70</sup> Later he became a well-known architect in Trondheim. Fasting kept a diary of his Hornsund sojourn, and published accounts of his stay at the station in e.g. *Trønder-Avisa* of 19 September 1958 and 24 December 1960. Fasting can be seen in Wyrzykowski's *Polarne wyprawy Włodzimierza Puchalskiego*, reminiscing in fluent Polish about being Puchalski's *ad hoc* film assistant.

<sup>&</sup>lt;sup>71</sup> Rubach is not named in the film but can be identified thanks to Dagmara Bożek-Andryszczak, *Ryszard Czajkowski: Podróżnik od zawsze*, Kraków, 2019, pp. 174-76.

<sup>&</sup>lt;sup>72</sup> See 'Stan wojenny na Spitsbergenie', *Opoka.org.pl*, 14 December 2011, <a href="https://opoka.org.pl/biblioteka/I/IH/niedziela201151-stan.html">https://opoka.org.pl/biblioteka/I/IH/niedziela201151-stan.html</a> [accessed 21 June 2023].

<sup>&</sup>lt;sup>73</sup> Professor Wesławski's personal communication.

<sup>&</sup>lt;sup>74</sup> See Krawczyk, 'Najpiekniejsze miejsce', pp. 52, 59.

<sup>&</sup>lt;sup>75</sup> See 'Stan wojenny'.

<sup>&</sup>lt;sup>76</sup> For more on its history, see, for example, Birkenmajer, '40-lecie polskiej stacji', 1997.

<sup>&</sup>lt;sup>77</sup> For details, see Przybylak et al, 'Polskie badania polarne z zakresu meteorologii i klimatologii', *Przeglad geofizyczny*, LXIV, 1-2, 2019, pp. 3-32.

<sup>&</sup>lt;sup>78</sup> For more on Baranówka's history, see J. Pereyma, 'Stacja Polarna im. Stanisława Baranowskiego Uniwersytetu Wrocławskiego na Spitsbergenie', *Biuletyn polarny*, 15-16, 2010, pp. 71-76; and Migala, Pereyma and Piasecki, *Magiczne miejsce "Baranówka"*.

<sup>&</sup>lt;sup>79</sup> See Köhler, 'Polska wyprawa na Spitsbergen w 1938 roku'; and M. Klimaszewski, 'Studia geomorfologiczne w zachodniej części Spitsbergenu między Kongs-Fjordem a Eidem-Bukta', *Zeszyty naukowe Uniwersytetu Jagiellońskiego, Prace geograficzne - Seria nowa*, 32, 1, 1960, pp. 1-167.

<sup>&</sup>lt;sup>80</sup> For more on the station's history, see I. Sobota (ed.), *Dom daleko od domu: Stacja Polarna Uniwersytetu Mikołaja Kopernika na Spitsbergenie*, Toruń, 2015. Visuals from its early period are gathered in Roman Tondel's short *Pocztówki z przeszłości – Spitsbergen* (Postcards from the Past – Svalbard, 2019).

<sup>&</sup>lt;sup>81</sup> For more Polish ascents on Spitsbergen in 1934, see Köhler, 'Polska wyprawa na Spitsbergen w 1934 roku', p. 131.

<sup>82</sup> For exact details, see also R. Czajkowski, 'Spitsbergen, lato 1971', Taternik, 3 (220), 1973, p. 132.

<sup>&</sup>lt;sup>83</sup> For more on the two boat trips, see e.g. Janusz Karkoszka, 'Łodziami do 81 równoleżnika', *Trybuna robotnicza*, 231, 30 September 1983, p. 5; and R. W. Schramm, *Dwa długie dni*, vols 1-2, Poznań, 1996. For more on Schramm as a polar explorer, see T. Schramm, 'Działalność polarna profesora Ryszarda Wiktora Schramma', *Biuletyn polarny*, 15-16, 2010, pp. 64-70.

<sup>&</sup>lt;sup>84</sup> Unlike mountains, glaciers are in constant motion. The caves formed by them are strikingly beautiful but relatively short-lived and the risk of cave-in is huge.

<sup>&</sup>lt;sup>85</sup> Seven years after its creation, *Zimny lqd* was routinized in Czajkowski's TV broadcast called *Przez lqdy i morza: Spitsbergen* (Through Sea and Ice: Svalbard). Czajkowski alternated segments from *Zimny lqd* (totalling about a half of the film's overall length) and a live studio interview with the geophysicist Piotr Głowacki of the Silesian University in Katowice, who had taken part in Pulina's 1983 expedition and went inside the glacier, too. The interview, interesting as it was, lasted just a little longer than the film fragments. To those who had seen the entire film previously, these fragments must have looked like a recycled footage.

<sup>&</sup>lt;sup>86</sup> Adam Małachowski from the Katowice speleoclub, see S. Misztal, 'Jaskiniowcy czyli glacjospeleolodzy w Værenhusie', in Migala, Pereyma and Piasecki, *Magiczne miejsce* "*Baranówka*", pp. 89-90.

<sup>&</sup>lt;sup>87</sup> For more on the Arc-of-Meridian expedition, see, for example, Urban Wråkberg, 'The Russo-Swedish Arc of the Meridian Expeditions to Spitsbergen 1898-1902', in Evgeny Bouzney (ed.), *International Scientific Cooperation in the Arctic*, Moscow, 2002, pp. 15-52.

<sup>&</sup>lt;sup>88</sup> Not all the films made during the ethical period adhere to its dominant perception that Svalbard is at risk. Thus, the short feature *Spitsbergen* (2017) by Michał Szcześniak upholds the time-honoured view that Svalbard poses a risk. The film's action does not take place on Spitsbergen. The story focuses on a female paramedic who saves lives while suffering from a personal bereavement: her boyfriend committed suicide after losing his legs in an accident on Spitsbergen. The island is only

shown on a photograph and serves as a sign of fascination with mortal danger. According to the film's scriptwriter Monika Sirojc (as interviewed by Andrei Rogatchevski on Messenger on 24 April 2023), Svalbard is 'a wild and strong place, a place of isolation, solitude, a place of escape, a place to prove yourself, a place to test yourself'. Sirojc has been fascinated with Svalbard for years and visited it.

89 See J. Phelan, 'Svalbard: The Arctic Islands Where We Can See the Future of Global Heating', *The Observer*, 13 May 2023.

<sup>101</sup> Poetic documentaries are extremely rare among Polish films about Svalbard, which are dominated by the three subgenres as defined by Kustusch. We can name only one more such documentary, Zygmunt's *Polarne lody*, in which a female voice recites Svalbard-inspired poetry by the biochemist Zbigniew Jóźwik, a UMCS employee who went to Spitsbergen in 1987, 1989, 1991, 1993, 1995 and 2000.

<sup>&</sup>lt;sup>90</sup> Rephotographing Svalbard's glaciers to demonstrate their retreat has been done many times since (if not before), most recently in Sindre Kolbjørnsgard's documentary *Voice of the Glaciers* (2021).

<sup>&</sup>lt;sup>91</sup> Her *Ekologia arktyczna* (Arctic Ecology), released one year before *Ślad*, has not been available for viewing to the authors of this article.

<sup>&</sup>lt;sup>92</sup> Bartólewska's telephone interview with Jacek Szymala on 1 December 2020.

<sup>&</sup>lt;sup>93</sup> The co-directors' earlier Svalbard-related film, *Male życie* (Small-size Life, 2012), has not been available for viewing to the authors of this article.

<sup>&</sup>lt;sup>94</sup> In 2018, the Norwegian filmmaker Asgeir Helgestad released a documentary called *Queen Without Land*, about the influence of global warming on a Svalbard-bound polar bear family. *Queen Without Land* sends a message similar to *Alczyk*'s, with the aid of a much grander protagonist.

<sup>&</sup>lt;sup>95</sup> Somewhat reminiscent of Jeff Orlowski's larger-scale and better-known documentary *Chasing Ice* (2012), unrelated to Svalbard.

<sup>&</sup>lt;sup>96</sup> For a review of the film, see A. Jósefiak, 'HAHUT Ryszarda Kruka', *KlubFilmovy.com*, 10 November 2022, <a href="https://klubfilmowy.com/hahut-ryszarda-kruka">https://klubfilmowy.com/hahut-ryszarda-kruka</a> [accessed 22 June 2023].

<sup>&</sup>lt;sup>97</sup> Apparently, some of these bears featured previously in *Queen Without Land*.

<sup>&</sup>lt;sup>98</sup> For details, see e.g. D. Nikel, 'Dutch Man Killed by Polar Bear on Svalbard Campsite', *Forbes*, 28 August 2020.

<sup>&</sup>lt;sup>99</sup> This is a glaring example of human-caused pollution at work. Quite beside himself, Sobota comments: 'It took me forty minutes to dig the fishnet out of sand. [...] This is human race in all its fucking glory' (36:41-36:48).

<sup>&</sup>lt;sup>100</sup> An earlier instance of anthropomorphizing glaciers takes place in *Goraczka polarna*, also in the context of mortal illness and decay. A boat passes by a glacier and the passengers are shouting at it (as a joke) to try and make it calve. The glacier does not calve but the echo brings the scream back. 'It's answering us', remarks one passenger. – 'Yes, but the answer is not very intelligible', says another. – 'Well, it's a very old glacier. It probably has Alzheimer's' (03:13-03:46).

- <sup>112</sup> Professor Jahn noted in his diary that at the end of the 1970s, for lack of food, there were much fewer birds on Svalbard than in the late 1950s, when Puchalski had filmed them there (see J. Szymala and A. Rogatchevski, 'Svalbard w filmach polskich z lat 50. i 60. XX w.', p. 51).
- <sup>113</sup> Unfortunately, neither Swerpel's nor Niedzicki's films have been available for viewing to the authors of this article. Niedzicki's films about Svalbard could not even be included in our inventory because there is no reliable information concerning when they were made and what their titles were. Niedzicki did not respond to our request for clarification and access.
- <sup>114</sup> On the subject of the comparative availability of resources, Węsławski recalls that once on Svalbard he witnessed how three filmmakers from the Discovery Channel were waiting for three weeks on a snow slope to shoot a two-minute sequence of a polar bear emerging from her den.
- <sup>115</sup> For research on this topic (not involving Poland as yet), see, for instance, Stian Bones, 'Science In-Between: Norway, the European Arctic and the Soviet Union', in S. Sörlin (ed.), *Science, Geopolitics and Culture in the Polar Region: Norden beyond Borders*, London, 2013 (chapter 6).
- <sup>116</sup> We would like to express our profound gratitude to Jakub Krakowiak and Marek Pelski (WFO), as well as Dagmara Bożek, Agata Lubowicka, Szymon Kostka, Ryszard Kruk, Ivar Stokkeland and Michał Szcześniak, for generously sharing with us various films and publications to help us write this article. Special thanks are also due to Ilia Rogatchevski for his invaluable technical assistance, and to the anonymous peer reviewers for the final touch.

<sup>&</sup>lt;sup>102</sup> A. Krawczyk, 'Syndrom Værenhusa', in Migała, Pereyma and Piasecki, *Magiczne miejsce* 'Baranówka'', pp. 73-78 (p. 74).

<sup>&</sup>lt;sup>103</sup> A telephone interview with Jacek Szymala on 1 December 2020.

<sup>&</sup>lt;sup>104</sup> See Krawczyk, 'Syndrom Værenhusa', p. 75.

<sup>&</sup>lt;sup>105</sup> In 1958, Alina Centkiewicz (1907-93) went even to the Antarctic, the first Polish woman to do so.

<sup>&</sup>lt;sup>106</sup> Some of these women's stories have been told in Dagmara Bożek, *Polarniczki: Zdobywczynie podbiegunowego świata*, Kraków, 2021.

<sup>&</sup>lt;sup>107</sup> W. E. Krawczyk, 'Najpiękniejsze miejsce na Spitsbergene', p. 57.

<sup>&</sup>lt;sup>108</sup> Ibid., pp. 49-50.

<sup>109</sup> Hertel, 'Byłem na Spitzbergenie'.

<sup>&</sup>lt;sup>110</sup> One should not forget the glaciospeleologist Anna Haczek, who could be seen in Kostka's *Trzynasty raz na Spitsbergenie* (The Thirteenth Visit to Svalbard, 2007) and *Ostatni raz*.

<sup>&</sup>lt;sup>111</sup> For details, see Rogatchevski, 'Svalbard on the (Post-)Soviet Screen'.