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RESEARCH ARTICLE

Niche development: the International Foundation for Science and the road to Sweden

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Abstract

This paper examines the crowded landscape of conferences and organizations within which the International Foundation for Science (IFS) was shaped in the early 1970s. The IFS aimed to support scientists from developing countries, circumventing the bureaucracy of established international organizations such as UNESCO and the Organization for Economic Co-operation and Development (OECD). The new foundation was a potential rival to such institutions, which ironically provided the conditions essential to its emergence. Their conferences, board meetings and assemblies, where scientists and policy makers convened, provided key infrastructure for the development of the IFS. This infrastructure appears simultaneously both as an almost invisible feature of international science policy, and as a political problem. The solution to this problem was Stockholm: a geographical place that was also placeless, occupying both national and international status, desirable in its political, scientific and geographical neutrality. In an organizational context, academies and scientific societies who found their role circumscribed by existing international institutions used the IFS to argue for their particular role and expertise in funding and promoting scientific development. Geographically and politically, neutral Sweden provided a setting which was located between East and West, and which added to the country's own reputation for championing the causes of developing nations.

In late July 1970, thirty-two scientists and representatives of sixteen national academies and scientific organizations gathered for a conference at the picturesque Hotel Foresta on the island of Lidingö, outside Stockholm. Their mission was the creation of an 'international science foundation' to support research in developing countries. Two days of deliberations resulted in a general plan for the proposed foundation and its development. A continuing committee was appointed, convening on the last day of the conference to lay out the road ahead with the help of a smaller working group. During the following two years, the continuing committee, the working group and, eventually, the interim board of the proposed foundation hammered out its purpose and structure, resulting in the launch of the International Foundation for Science (IFS) in 1972. They accommodated the busy schedules of their members by planning meetings to coincide with the conferences and assemblies of the UN, UNESCO, the Nobel Foundation, the International Centre for Insect Physiology and Ecology (ICIPE) and other international and scientific

organizations. The Foresta meeting was itself the result of a series of proposals and initiatives launched in such conference settings.[1]

This paper examines the crowded landscape of conferences and organizations where the International Foundation for Science was shaped. Ranging from small-scale board meetings and symposia to large assemblies, these gatherings of scientists and policy makers provided the infrastructure for the development of the IFS. At the same time, the new organization represented an important challenge for the institutions arranging the meetings, as it competed for a niche in the international landscape of development science.

In an organizational context, academies and scientific societies argued for their particular role and expertise in funding and promoting scientific development. Geographically and politically, neutral Sweden offered a conference site which was located between East and West, and which both benefited from and added to the country's reputation for championing the causes of developing nations. Thus the genesis of the IFS illustrates the complex interactions of geography and organizational structure. While Sweden and Swedish government representatives provided desirable political and geographical associations, the unique role of the IFS depended on its non-governmental status, unaffiliated with international organizations. The conference circuit provided the stage on which these negotiations played out.

In this paper, I will first outline the landscape of organizations, meetings and conferences around 1970 amongst which the International Foundation for Science sought its place. While suggesting an almost placeless sphere of international science policy, these meetings were nevertheless rooted in the geographical and organizational contexts that shaped the IFS. Second, I detail the work of launching of the foundation, with the conference at Foresta as a defining moment. The location and the organization of the conference set the tone for the negotiations of the following years, and the fundamental decisions about the international status of the IFS. Based primarily on the archives of the IFS, located in Stockholm, the story reveals the predominantly Northern and Western character of the IFS initiative in its early years.[2] Third, I discuss how Sweden emerged as a geographical and organizational home of the IFS, and the particular role of scientific institutions – national and international – in shaping the Swedish development agenda. The development of the IFS highlights the struggle of scientific institutions to define a new role for themselves on the international stage, and the casting of Stockholm as a scientific, political and geographical solution to the politics of international organizations.

A crowded landscape

The 'landscape' which the IFS navigated was both organizational and geographical. International as well as non-governmental scientific organizations grappled with issues of science and development, and their own role in shaping them. Geographically, the locations and associations of organizations and conference sites influenced their effectiveness and credibility.

In the years around 1970, a number of different organizations were debating international development, economic growth and the environment. There was widespread

[1] The agenda, minutes and discussion notes from the Foresta conference are in the 'Olle E IFS History' file in the Archives of the International Foundation for Science, Stockholm.

[2] The secretariat and archives of the IFS are in Stockholm, Sweden; many IFS documents are also in the Archives of the Royal Swedish Academy of Sciences, Stockholm, and the Archives of the Royal Swedish Academy of Engineering Sciences, kept at the Centre for Business History, Stockholm. Documents relating to UN assemblies and agencies have been cross-checked in the UN Depository Library at Uppsala University Library. A brief history of the IFS written by its then director is [Nicolai Herlofson], 'Developing sciences: creation and early development of the International Foundation for Science (IFS)', in *IVA-rapport 141*, Stockholm: Ingenjörsvetenskapsakademien, 1978, pp. 1–18.

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dissatisfaction with existing international organizations, in particular the shifting power dynamics and bureaucracy of the UN system.[3] The UN had declared the 1960s the first Development Decade, and the UN Conference on Trade and Development, UNCTAD, was established in 1964. In 1963 a specific UN Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas (UNCAST) was held in Geneva, resulting in an Advisory Committee on the Application of Science and Technology to Development (ACAST). Faced with an enormous task and limited resources, ACAST was highly selective in its activities, leaving ample room for other actors.[4]

A particular question was whether governmental international organizations or independent non-governmental organizations were better placed to engage with this complex tangle of problems. In the case of the environment, the OECD showed early interest in entering the arena, as Iris Borowy has shown. However, Mathias Schmelzer points out that the Club of Rome, even with its strong connections to the OECD, was conceived as a non-bureaucratic, non-partisan alternative to such ungainly state actors.[5] In contrast, the expectations of the experts of the non-governmental International Union for the Conservation of Nature that they would have a central role to play in international environmental administration foundered in the political climate of the 1972 Stockholm Conference on the Human Environment, which led – among other things – to the establishment of UNEP, the United Nations Environment Programme.[6]

More venerable institutions were also anxious to stake out territory in this organizational landscape. Academies and scientific societies had seen their status and influence wane during the twentieth century, but sensed a new role as ostensibly non-political actors in a development context. While historians have identified scientific institutions as important instruments of 'soft power' during the Cold War, not least in courting nations in the developing world, they were also crucial in maintaining contact across political divides.[7]

Matthew Evangelista has emphasized the significance of transnational actors on this 'crowded stage' of Cold War history.[8] Evangelista's chief example is the Pugwash

[3] On the calls for alternative approaches to development see Paul Adler, 'Creating "the NGO international": the rise of advocacy for alternative development, 1974–1994', in Stephen Macekura and Erez Manela (eds.), *The Development Century: A Global History*, Cambridge: Cambridge University Press, 2018, pp. 305–25. On the changing meaning of 'development' in a Cold War context see also Sara Lorenzini, *Global Development: A Cold War History*, Princeton, NJ: Princeton University Press, 2019, particularly Chapter 6.

[4] On the history and tasks of ACAST see Ernst B. Haas, Mary Pat Williams and Don Babai, *Scientists and World Order: The Uses of Technical Knowledge in International Organizations*, Berkeley: University of California Press, 1977, pp. 233–315.

[5] Iris Borowy, 'Before UNEP: who was in charge of the global environment? The struggle for institutional responsibility 1968–72', *Journal of Global History* (2019) 14(1), pp. 87–106; Mathias Schmelzer, '"Born in the corridors of the OECD": the forgotten origins of the Club of Rome, transnational networks, and the 1970s in global history', *Journal of Global History* (2017) 12(1), pp. 26–48. Schmelzer focuses his narrative on the connections between the individual members of the Club of Rome and OECD; a parallel but more quantitatively oriented study is Raf de Bont, Simone Schleper and Hans Schouwenburg, 'Conservation conferences and expert networks in the short twentieth century', *Environment and History* (2017) 23(4), pp. 569–99.

[6] Simone Schleper, *Planning for the Planet: Environmental Expertise and the International Union for Conservation of Nature and Natural Resources, 1960–1980*, New York: Berghahn, 2019, pp. 96–134.

[7] The American focus in scholarship on Cold War science has broadened in the last decade to include global perspectives. For overviews see Naomi Oreskes, 'Introduction', in Naomi Oreskes and John Krige (eds.), *Science and Technology in the Global Cold War*, Cambridge, MA: MIT Press, 2014, pp. 1–9; Hunter Heyck and David Kaiser, '"Introduction", Focus: New perspectives on science and the cold war', *Isis* (2010) 101(2), pp. 362–6

[8] Matthew Evangelista, 'Transnational organizations and the Cold War', in Melvyn P. Leffler and Odd Arne Westad (eds.), *The Cambridge History of the Cold War*, vol. 3: *Endings*, Cambridge: Cambridge University Press, 2010, pp. 400–21.

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Conferences on Science and World Affairs, the first of which was held in 1957, when twenty-two scientists from both sides of the Iron Curtain converged in Pugwash, Nova Scotia to discuss disarmament. By the late 1960s Pugwash members – initially individuals rather than representatives of nations or organizations – met regularly at conferences around the world to discuss a range of issues related to disarmament, science policy and development.[9]

By this time, Pugwash had developed an administrative structure of committees issuing statements and proceedings, and could, as Alison Kraft, Holger Nehring and Carola Sachse argue, be characterized as an international non-governmental organization rather than a loose network.[10] Nevertheless, conferences remained the core of their activities. Pugwash is an example of the blurred boundaries between international conferences and organizations, or, to put it differently, their mutually constitutive relationship. Conferences require organizational structures, whether ad hoc or permanent; and international organizations, while anchored in headquarters and publications, regularly work through committee meetings, assemblies and conferences. In addition, conferences are often public events, issuing statements and inviting press coverage. Taking time, and taking place, they provide opportunities to stand out in a crowded landscape of international organizations.

The choice of a country, city or venue for a conference expresses the ambitions and positioning of its organizers, and has practical consequences for proceedings and participants.[11] In his study of the geographies of the 1949 World Pacifist Conference in India, Jake Hodder discusses international conferences as 'convergence spaces', enabling encounters between actors with widely dissimilar trajectories.[12] He recounts how the choice of meeting sites for that conference – several towns and villages in India – served as deliberate contrasts to meetings in 'conventional sites of liberal internationalism', such as Washington, Paris or Geneva. The meetings leading up to the IFS took place in precisely such sites, significantly located in the global North. More than 'convergence spaces', they appear as 'convenience spaces', reflecting the structure of the international science policy environment in which its actors moved, taken for granted in order to appear – like some conceptions of universal science – almost placeless.[13]

Conferences and organizations existed in a landscape of other meetings and organizations, where the event of a conference or an assembly provided a platform for yet other

[9] The comprehensive work on Pugwash is Matthew Evangelista, *Unarmed Forces: The Transnational Movement to End the Cold War*, Ithaca, NY: Cornell University Press, 1999. For specific discussions of Pugwash in different national contexts see Alison Kraft, Holger Nehring and Carola Sachse, 'Introduction', *Journal of Cold War Studies* (2018) 20(1), pp. 4–30, and the papers in that special journal issue. The significance of Pugwash for the IFS is reflected on the current Wikipedia page for the 'Pugwash Conferences on Science and World Affairs', where IFS has its own heading. 'Pugwash Conferences on Science and World Affairs, *Wikipedia*, at https://en.wikipedia.org/wiki/Pugwash_Conferences_on_Science_and_World_Affairs (accessed 28 September 2021). On the early years of Pugwash see also Waqar H. Zaidi, 'The Pugwash scientists' conferences, Cyrus Eaton, and the clash of internationalisms, 1954–1961', in this issue.

[10] Kraft, Nehring and Sachse, op. cit. (9), p. 20.

[11] Mike Heffernan, Jake Hodder, Stephen Legg and Benjamin Thorpe, 'Introduction', in Stephen Legg, Mike Heffernan, Jake Hodder and Benjamin Thorpe (eds.), *Placing Internationalism: International Conferences and the Making of the Modern World*, London: Bloomsbury Academic, 2022, pp. 11–36.

[12] Jake Hodder, 'Conferencing the international at the World Pacifist Meeting, 1949', *Political Geography* (2015) 49(1), pp. 40–50, 41. He borrows the term from Paul Routledge, who coined it to analyse the virtual and concrete networks of social movements. Paul Routledge, 'Convergence space: process geographies of grassroots globalization', *Transactions of the Institute of British Geographers* (2003) 28(3), pp. 333–49.

[13] The term 'placelessness' is often used in human geography to describe experiences of space and alienation. Edward Relph, *Place and Placelessness*, London: Pion, 1976.

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meetings to take place, and for new organizations to form.[14] In the 1960s, a city like Paris was reinforced as a meeting place for all matters cultural and international by the presence of the OECD headquarters and UNESCO, with its multitude of affiliated organizations. The meeting places associated with the shaping of the IFS all came with their own histories and associations, potential resources as well as obstacles.

In this context, Sweden was an attractive alternative, geographically and politically. Small neutral states, like Sweden, Switzerland and Belgium, have played a seemingly disproportionate role in international politics and organizations during the twentieth century.[15] Serving as headquarters of international organizations, as sites of conferences and as go-betweens in political negotiations, they have been described as 'engines of internationalism', compensating for their economic and military vulnerability.[16] In the post-war era, Sweden had demonstrated its support for decolonization, as well as being politically neutral and geographically situated between East and West. As Christine Agius has pointed out, Swedish neutrality in the post-war period went beyond the 'good offices' associated with neutral countries, into an 'active neutrality' aiming to export social-democratic norms into an international context.[17] Along similar lines, Christine Ingebritsen uses the term 'norm entrepreneurs' to describe the deliberate efforts of the Scandinavian countries to influence environmental politics, conflict resolution and development aid in the post-war period.[18] The Swedish reputation for modernity and progressive values was promoted by agencies such as the Swedish Institute in their efforts of 'nation branding' via exhibitions, publications and exchange programmes throughout the twentieth century.[19] Institutions such as the Royal Swedish Academies of Sciences and Engineering Sciences benefited from their Swedish status, while at the same time emphasizing their independence from the Swedish government in the name of science.

In this context, neutral Sweden as a conference site was both a specific place and a symbol of universal science, theoretically at home in any country. Similarly, the meeting infrastructure for the planning of the IFS, while accommodating the practicalities of international travel and conferencing, illustrates the tensions between the 'placelessness' of international science and science policy and the political associations of organizational nodes such as Paris and New York.

Organizing Foresta, organizing the IFS

The conferences and discussions leading up to the establishment of the IFS were a mix of carefully staged events and apparently ad hoc meetings. The starting point, by most

[14] Half a century earlier, the great exhibitions attracted – were even designed for – international conferences, whether academic or commercial. Thomas Mougey, 'The practice of standardization: enacting unity at the International Geological Congresses, 1878–1900', in this issue.

[15] An overview of the field is Christine Ingebritsen, Iver Neumann, Sieglinde Gstöhl and Jessica Beyer (eds.), *Small States in International Relations*, Seattle: University of Washington Press, 2006.

[16] Sandrine Kott, 'Les organisations internationales, terrains d'étude de la globalisation: Jalons pour une approche socio-historique', *Critique internationale* (2011) 52, pp. 9–16, 14–15.

[17] Christine Agius, *The Social Construction of Swedish Neutrality: Challenges to Swedish Identity and Sovereignty*, Manchester: Manchester University Press, 2006, pp. 90–119, 90.

[18] Christine Ingebritsen, 'Norm entrepreneurs: Scandinavia's role in world politics', *Cooperation and Conflict: Journal of the Nordic International Studies Association* (2002) 37(1), pp. 11–23.

[19] See Louis Clerc, Nikolas Glover and Paul Jordan (eds.), *Histories of Public Diplomacy and Nation Branding in the Nordic and Baltic Countries: Representing the Periphery*, Leiden: Brill Nijhoff, 2015; Andreas Åkerlund, *Public Diplomacy and Academic Mobility in Sweden: The Swedish Institute and Scholarship Programs for Foreign Academics, 1938–2010*, Lund: Nordic Academic Press, 2016; Carl Marklund, 'The Nordic model on the global market of ideas: the welfare state as Scandinavia's best brand', *Geopolitics* (2017) 22(3), pp. 623–39.

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accounts, was a series of Pugwash conferences during the 1960s. The twelfth Pugwash conference, held in Udaipur, India, in 1964, was in large part devoted to the role of science and technology in development, and the question of funding for developing countries was raised.[20] In 1967, the American scientist and entrepreneur Carl Djerassi presented a plan for establishing 'centres of excellence' in developing countries, to strengthen their role in scientific research internationally. The proposal is regarded as the impetus for, if not the only factor in, the establishment of the International Centre for Insect Physiology and Ecology (ICIPE) in Nairobi a few years later, with the funding and support of a number of scientific academies and institutions around the world.[21]

Along similar lines, at the nineteenth Pugwash conference in Soichi in 1969, two American scientists argued for the role of scientific institutions, rather than nations or international organizations, in supporting basic research in developing countries, and proposed a funding agency for this specific purpose. Roger Revelle was the head of the Harvard Centre for Population Studies and Robert Marshak had initiated the influential Rochester Conferences in high-energy physics, which developed into meeting places for scientists from both sides of the Iron Curtain. He was also an adviser at the founding of the International Centre for Theoretical Physics at Trieste headed by the Pakistani physicist Abdus Salam, a powerful advocate for scientific development in developing countries.[22] Revelle and Marshak revised the proposal with Salam, and engaged two further representatives of American scientific academies, John Voss and Murray Todd, to present the paper at the meeting of ACAST in April 1970.[23] At the meeting, the French physicist Pierre Auger was added to the group in order to work out a final version of the memorandum.[24]

Also present in New York were two visitors from the Royal Swedish Academy of Engineering Sciences, Sven Brohult and Lennart Båveryd. Although not formally affiliated with ACAST, they came away from the meeting with the task of hosting a preparatory conference on an 'international science foundation' in Sweden as soon as possible. Faced with this sudden responsibility, Brohult reached out to the Royal Swedish Academy of Sciences to share responsibility for the conference, referring to their mutual ongoing concerns about 'the need to assert the position of the academies'.[25]

Despite the short notice, the conference was carefully planned. The date was set for 22–4 July 1970 in Stockholm, to suit the European travels of transatlantic participants, and to avoid clashing with a meeting of the International Council of Scientific Unions (ICSU), involving some of the same issues and participants. The conference would advertise

[20] Eugene Rabinowitch, 'On the Sochi conference', *Bulletin of the Atomic Scientists* (1970) 26(4), pp. 18–20; Rabinowitch, 'Report of the Pugwash sub-committee on the role of science and technology in development', *Records of the Academy (American Academy of Arts and Sciences)* (1970) 1969–70, pp. 34–6.

[21] Carl Djerassi, 'A high priority? Research centers in developing nations', *Bulletin of the Atomic Scientists* (1968) 24(1), pp. 22–7. A brief overview of the history of ICIPE is given on its webpage, 'ICIPE: our history', *ICIPE*, at www.icipe.org/about/our_history (accessed 28 December 2021).

[22] 'Salam was indeed the leader of the third world cause in the Western physics community, and the ICTP embodied such a crusade to modernize the developing countries through science.' Alexis DeGrieff, 'The politics of noncooperation: the boycott of the International Centre for Theoretical Physics', *Osiris* (2006) 21, pp. 86–109, 101.

[23] An account of ACAST partly from the perspective of its members is Haas, Williams and Babai, op. cit. (4), pp. 247–53.

[24] Unpublished notes by Lennart Båveryd in the archives of the IFS suggest a more complicated prehistory, involving proposals by Carl Djerassi and Thomas Odhiambo of ICIPE for centres of excellence in developing countries, but still with Pugwash as a framework. Handwritten notes headed 'LBåv. jul-75', file 'PM Presentationer m.m. 1974–1975', Archives of the International Foundation for Science, Stockholm.

[25] Letter from Lennart Båveryd to Erik Rudberg, 10 April 1970, Erik Rudbergs arkiv, Archives of the Royal Swedish Academy of Sciences, Stockholm.

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the IFS mission both within the scientific community and to a wider audience, with a press conference and press releases, and hopefully famous participants, serving as a blueprint for the foundation itself. (In the end, the planned press conference was cancelled due to poor attendance, and the organizers had to settle for a press release.[26])

The list of attendees was the most pressing point. Marshak argued for maintaining strong ties with the UN, and appointing ACAST members to the organizing committee. Arne Tiselius of the Nobel Foundation, an influential voice in Swedish and international science policy, recommended that the conference be chaired by Pierre Auger, who would bring his UNESCO credentials to the table.[27] Representation from the developing world was crucial, as were more overtly political considerations: the Swedish organizers went to great lengths (ultimately unsuccessfully) to get Russian participation, and Marshak suggested engaging at least one Indian scientist for the committee, to balance the strong involvement of the Pakistani Salam.[28] In order to make the group small enough, and homogeneous enough, for extended discussions, primarily representatives of scientific academies were invited, as the most relevant for the proposed organization of the IFS.[29]

The organizers were careful in preparing the ground for these discussions. In order to curb the 'tendency at such meetings for participants to read sermons to one another or to engage in oral exhortation', they decided to have the four authors of the ACAST memoranda set the tone of the proceedings by giving brief introductions, rather than long presentations. The memoranda were distributed ahead of the meeting to provide a common focus, as was an outline of the proposed principles and statutes, and the agenda was firmly focused on concrete problems.[30] Interpreters were engaged to facilitate communication. Like a board meeting, the Foresta conference was geared towards efficient decision making, but it also emphasized free discussions among elite scientists.

In the short time leading up to the conference, the organizers explored possible sources of funding, affiliation and competition among other international organizations. Båveryd and Brohult met with representatives of the OECD development committee (DAC) in Paris in May 1970, as well as with the assistant secretary general of natural sciences at UNESCO, to discuss funding. Both organizations expressed support, but emphasized that neither could serve as principal of the proposed foundation, and that it would be essential to find a niche for the IFS not already filled by some other organization. Meanwhile, Marshak met with Robert MacNamara to try to secure funding from the World Bank.[31]

[26] 'International Science Foundation, meeting July 24 1970, Stockholm, Sweden. Press release', file 'IFS', Archives of the International Section, Archives of the Royal Swedish Academy of Sciences, Stockholm.

[27] Marshak and Tiselius had met at a meeting of the 'World Academy of Art and Science'. Notes from telephone conversation between Jan Nilsson and Robert Marshak, 12 May 1970, file 'IFS 1970', Archives of the IFS. The World Academy was founded in Geneva in 1960, and consisted of an international group of fellows intended to function as an informal world university. It shared most of its members with Pugwash and UNESCO, as well as with the proposed IFS and IFIAS; see Sven Widmalm, '"Super Bowl of the world conference circuit"? A network approach to high-level science and policy conferencing', in this issue. Auger was a former science director (1948–59) at UNESCO. A brief overview of UNESCO's science agenda is Aant Elzinga, 'Unesco and the politics of scientific internationalism', in Aant Elzinga and Catharina Landström (eds.), *Internationalism and Science*, London: Taylor Graham, 1996, pp. 89–131.

[28] Notes from telephone conversation between [Lennart Båveryd] and Robert Marshak, 12 May 1970, 'PM från telefonsamtal med prof. R. Marshak den 12.5.1970', file 'IFS', Internationella avdelningen, Archives of the Royal Swedish Academy of Sciences, Stockholm.

[29] Letter from Lennart Båveryd to Robert Marshak, 10 June 1970, file 'IFS 1970', Archives of the International Foundation for Science, Stockholm.

[30] Letter from John Voss to Lennart Båveryd, 30 June 1970, file 'IFS 1970', Archives of the International Foundation for Science, Stockholm.

[31] Letter from Robert Marshak to Lennart Båveryd, 13 May 1970, Erik Rudbergs arkiv, Archives of the Royal Swedish Academy of Sciences, Stockholm.

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The conference organizers could thus bring to Stockholm approval from Pugwash, ACAST, UNESCO, the OECD and the World Bank, as well as the support of a number of scientific academies and organizations, national and international. Funding for the meeting itself was partly provided by UNESCO, as well as the two Swedish academies and private foundations.[32]

From the beginning, Robert Marshak was operating on 'the hypothesis that Sweden would be interested in having the main administrative center on its territory'. It was at his behest that Brohult and Båveryd from the Royal Swedish Academy of Engineering Sciences were invited to the presentation of the proposal to ACAST in New York in April 1970.[33] The American promoters of the IFS were anxious to minimize the otherwise conspicuous American background of the proposal.[34] When discussing the permanent location of the proposed foundation, the conference organizers stressed the importance of 'powerful support from a neutral country with strong goodwill in developing countries'. They had hoped, in vain, for an appearance of Olof Palme, prime minister of Sweden and a forceful voice on international issues, to lend 'dignified and valuable' support to the conference and to the project.[35]

The specific setting of the preparatory conference also played a part in defining the context of the proposed foundation. Constructed in the early twentieth century as a private residence in the form of a medieval castle, by 1970 Foresta was a well-known hotel, boasting famous guests and modern conference resources. It was located in Lidingö, an affluent island suburb outside Stockholm, where a number of prominent Swedish organizations, primarily in banking and business, had recently established conference facilities. The island had hosted several Nobel Symposia – small elite scientific conferences – and was gearing up for a series of preparatory meetings for the upcoming United Nations Conference on the Human Environment in 1972.[36] It offered both modern resources and rural calm, encapsulating the forward-looking politics of Sweden and a kind of peripheral power.

As laid out in the ACAST memoranda, and elaborated in the discussions at Foresta, the purpose of the proposed foundation was to develop research capacity in developing countries by granting funds to 'talented individual scientists' on the recommendation of their peers. Its membership would consist of academies, foundations and other scientific organizations, and it would depend on the 'idealism of the world scientific community' for its activities and, to a substantial extent, for its funding. This would foster excellence, and

[32] Crucial to the Swedish funding and organization was support from the newly established Salén foundation, also central to the planning and funding of Nobel Symposia. Widmalm, op. cit. (27). The Salén Foundation had also supported ICIPE, which was cited in the application for IFS. Application to the Salén Foundation, 17 November 1971, file 'IFS 1971', Archives of the International Foundation for Science, Stockholm.

[33] Handwritten notes headed 'LBåv. jul-75', file 'PM Presentationer m.m. 1974–1975', Archives of the International Foundation for Science, Stockholm, original emphasis.

[34] 'We believe that there are many areas where too much US involvement in such an educational endeavor [a concerted effort to expose the IFS concept] would not be looked on with favor.' Letter from Roger Revelle, Robert Marshak and Detlev Bronk to Sven Brohult, 9 December 1971, file 'IFS 1971', Archives of the International Foundation for Science, Stockholm. Revelle, Marshak and Bronk were referring both to the scientists of developing countries and to possible funding agencies.

[35] 'PM från samtal med avd.ch. L. Båveryd på Ingenjörsvetenskapsakademien den 8 maj 1970', file 'IFS 1970', Archives of the International Foundation for Science, Stockholm. On Palme's role in international development issues see Annika Berg, Urban Lundberg and Mattias Tydén, *En svindlande uppgift: Sverige och biståndet 1945–1975*, Stockholm: Ordfront förlag, 2021, pp. 427–35.

[36] On the Lidingö 'conference coast' see Eric and Nils Forsgren, *Lidingö: Människor och miljöer*, Lidingö: Lidingö hembygdsförening, 1995. The Millesgården museum at Lidingö, close to Foresta, also served as the setting for the opening chapter of Poul Anderson's famous science fiction novel *Tau Zero* (1970), where a spaceship under Swedish command resettles a new universe.

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avoid bureaucracy, as well as the political influence of national leaders and institutions, although governments and international organizations were welcome to provide funding.[37]

A crucial question for the Foresta participants was finding a function – or 'duty' – for the new foundation which was not already performed by some other organization. (The working title of 'International Science Foundation' had to be abandoned, since the name turned out to be taken by a rival – a 'phoney Greek proposal', as one organizer put it.[38] The name was changed to the International Foundation for Science, IFS.) Several potential models were discussed. On a conceptual level, the IFS was presented as a new version of the Rockefeller Foundation, doing for developing countries what Rockefeller had done for Western science in the interwar years and the aftermath of the Second World War.[39] More practically, ICIPE was suggested as a model for the charter of the foundation, as a research centre in the developing world, conceived and funded by scientific academies and institutions. The Trieste International Centre of Theoretical Physics was another possible inspiration, but since both were research institutions rather than funding agencies, their relevance to the discussion was debatable.[40] The IAEA had experience of funding research in developing countries, particularly under its current director, Sigvard Eklund, but it was narrowly focused on nuclear research.[41] There was general agreement that the UN institutions were ill-equipped to act as funding agencies. Eventually the relationship with UNESCO emerged as a major issue, both at the conference and in the subsequent discussions in the working group.

In the months following the Foresta conference, the working group continued to develop the plans for the foundation. Meetings were planned to coincide with assemblies and conferences of other institutions, and the group convened in various constellations at the London meeting of the International Institute of Insect Physiology and Ecology in Nairobi (itself the result of Pugwash proposals and academy collaboration), at the UNESCO assembly in Paris in the autumn of 1970, during Nobel festivities in Stockholm in December, and in New York at the ACAST meeting in March 1971. The goal was to launch the foundation at the UNESCO assembly in October 1971, with the support of a number of academies and scientific institutions from around the world.

But, as planning proceeded for the constituting assembly, a major organizational conflict emerged. Should the new foundation be an intergovernmental organization, closely associated with UNESCO, the UNDP and other UN organizations, or should it function as an independent, non-governmental organization? This status had implications for its effectiveness, as well as for its specific role among the many international organizations engaging in development issues.

The chairman of the continuing committee, Pierre Auger, was appointed partly for his position at UNESCO, and had already managed to get this organization to provide funding,

[37] 'Minutes of the meeting concerning a proposed international science foundation, held on July 23 and 24 1970, at Hotel Foresta, Lidingö, Sweden'; 'Report of the discussion of a proposed international science foundation, July 23–24, 1970', file 'Olle E IFS History', Archives of the International Foundation for Science, Stockholm.

[38] 'European non-governmental scientific organizations', File F5 i89, Archives of the Royal Swedish Academy of Engineering Sciences, Centre for Business History, Stockholm.

[39] On the role of the Rockefeller Foundation in post-war European science see John Krige, *American Hegemony and the Postwar Reconstruction of Science in Europe*, Cambridge, MA: MIT Press, 2006.

[40] Letter from Murray Todd to Robert Marshak, 30 June 1970, file 'IFS 1970', Archives of the International Foundation for Science, Stockholm.

[41] Eklund was invited to the conference, despite not being an academy representative. Letter from Hans G. Forsberg to Sigvard Eklund, 14 July 1970, file 'IFS 1970', Archives of the International Foundation for Science, Stockholm.

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an office and an administrator for the planning of the IFS.[42] Auger argued for a governmental solution with representatives from UN agencies such as the UNDP on the IFS board. Such a governmental organization could take advantage of the networks and offices of UN agencies, as well as their tax benefits.[43] Moreover, relations with Eastern Bloc nations would be facilitated by their established representation in UNESCO. However, UNESCO had problematic geographical and historical associations. When the ongoing work on the IFS was again presented at an ACAST meeting in New York in March 1971, several representatives objected to attaching the foundation to UNESCO in Paris. The capital of a country with a long colonial history was an unsuitable choice of headquarters for an organization devoted to the needs of developing countries, and UNESCO bureaucracy would hamper the work of the foundation.

The Swedish organizers argued for a non-governmental organization, and privately referred to the UNESCO involvement as a 'take over bid'.[44] The IFS would be more efficient without government bureaucracy, as well as more economical (relying on scientific idealism rather than salaried positions); and it would avoid political rivalries, conflicts and research priorities. At ACAST, Carlos Chagas, member from Brazil, argued for Stockholm as a better option than Paris, citing the presence of SIPRI, the international peace research institute. Furthermore, the 'goodwill' of the Stockholm-based Nobel Foundation, as well as its network of eminent scientists around the world, would facilitate both the reputation and the administration of the foundation.[45] The Nobel Foundation, while not conspicuously active, loomed large in the planning for the IFS. Its reputation strengthened the pitch for Sweden as a suitable site, both in the plans of its promoters and in the eyes of the world, and it was repeatedly emphasized in press releases and canvassing. Brohult proposed it as the logical continuation of Nobel–Rockefeller collaborations on science and development, and the idea was floated for a Nobel Symposium exclusively devoted to the IFS.[46]

Eventually, the question was put to the vote among the members of the continuing committee in December 1971. The non-governmental option won the vote decisively, and Auger resigned as chairman.[47] The charter meeting was postponed indefinitely. After months of frantic negotiations, via correspondence, at Nobel meetings and at UNESCO assemblies, the new continuing committee decided to launch the IFS anyway. In the absence of strong UNESCO connections, the Americans were even more anxious

[42] With the help of Adriano Buzzati-Traverso, a member of the IFS continuing committee as well as a UNESCO official. 'Minutes of the meeting of the continuing committee of the International Science Foundation', Archive of the International Section, file 'IFS', Archives of the Royal Swedish Academy of Sciences, Stockholm. Auger sums up his reasoning in a letter to Sven Brohult from 25 October 1971, file 'Uppgörelsen med Auger', Archives of the International Foundation for Science, Stockholm.

[43] Letter from Auger to Brohult, 25 October 1971, file 'Uppgörelsen med Auger', Archives of the International Foundation for Science, Stockholm.

[44] Letter from Lennart Båveryd to Robert Marshak, undated [September 1970], file 'Olle E IFS History', Archives of the International Foundation for Science, Stockholm.

[45] On colonial nations' mistrust see Corinna R. Unger, 'Postwar European development aid: defined by decolonization, the Cold War, and European integration?', in Macekura and Manela, op. cit. (3), pp. 240–60. Nobel connections as well as global goodwill were emphasized by the international secretary at the Royal Swedish Academy of Sciences Olof Tandberg, when he presented the IFS plan on Swedish radio in March 1971. Printout of the radio programme 'OBS Kulturen', Sveriges radio, 1 March 1971, Internationella avdelningens arkiv, file 'IFS', Archives of the Royal Swedish Academy of Sciences, Stockholm.

[46] On the symposia organized by the Nobel Foundation as meeting places for the scientific elite see Widmalm, op. cit. (27). [Brohult], 'A Nobel Symposium on the IFS', part of Brohult's presentation at the joint Nobel–Rockefeller Symposium at the Villa Serbelloni, 11–16 October 1971; letter from Voss to Jan Nordlander, 27 October 1971, both in file 'IFS 1971', Archives of the International Foundation for Science, Stockholm.

[47] 'Provisorisk röstlängd', file 'Olle E IFS History', Archives of the International Foundation for Science, Stockholm.

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to avoid the appearance of 'too much US involvement' and called for clear 'Swedish sponsorship', preferably with the approval of Swedish government agencies.[48]

Fifty academies and scientific institutions were invited to be founding members, and the working group decided that once fifteen had pledged support, the foundation would be considered established. They eventually settled for fourteen. The charter was signed by the supporting institutions, and the IFS was finally launched in Stockholm on 26 May 1972.[49] It was based in Stockholm and substantially supported by the Swedish government, but formally non-governmental. The half-promises of the World Bank and the OECD came to nothing.[50]

Sweden as organizational and geographical niche for the IFS

Organizations such as UNESCO, ICIPE and ACAST were potential allies, models or competitors of the IFS; they also provided concrete times and places for the IFS planners to meet through their assemblies and conferences. IFS meeting places were seemingly chosen for practical reasons, accommodating the schedules and institutional affiliations of the working group, and sometimes moved from one city to another on short notice to fit travel plans.[51] In this sense, these organizations appear as abstract nodes of convenience in an international network of science and science policy. But alongside this apparent placelessness, the associations of Paris and New York presented threats to the identity and independence of the new organization. Paris represented a colonial past and convoluted bureaucracy; New York a problematic American hegemony in science as well as international politics. The ICTP at Trieste embodied, on the one hand, a desirable focus on scientific excellence as a path to success for developing countries, and on the other the dominance of Abdus Salam and the dangers of politicizing science.[52]

Sweden, by contrast, represented political neutrality, commitment to developing countries and, as demonstrated in the Nobel Foundation, scientific excellence. Swedish foreign policy focused increasingly on developing countries in the 1960s, arguing for increasing national contributions to development aid and supporting decolonization.[53] Social Democratic politician Olof Palme, prime minister from 1969, became an international symbol of advocacy for decolonization.[54] Sweden's reputation in development issues was strengthened by its actions in the UN and in affiliated organizations such as the IAEA, where Swedish physicist Sigvard Eklund, as director, turned the focus of the organization towards scientific support for developing countries.[55]

[48] Letter from Marshak, Revelle and Detlev Bronk to Sven Brohult, 9 December 1971, file 'Olle E IFS History', Archives of the International Foundation for Science, Stockholm.

[49] 'Charter of foundation for the International Foundation for Science', file 'OLD IFS', Archives of the International Foundation for Science, Stockholm. The royal commission was the basis of the later establishment of the Swedish Agency for Research Cooperation with Developing Countries (SAREC).

[50] The Canadian government also granted funds to the foundation, eventually joined by ORSTOM, the French development research agency. [Herlofson], op. cit. (2).

[51] Letter from Sven Brohult to Detlev Bronk, 29 December 1971, file 'IFS 1971', Archives of the International Foundation for Science, Stockholm.

[52] On Trieste as a site for the ICTP see Alexis DeGrieff, 'The tale of two peripheries: the creation of the International Centre for Theoretical Physics in Trieste', *Historical Studies in the Physical and Biological Sciences* 33 (1) (2002), pp. 33–59; DeGrieff, op. cit. (22).

[53] Scholars have debated the role of social democracy in the long and complicated history of Swedish foreign policy and its links to development aid. The debate is discussed in Berg, Lundberg and Tydén, op. cit. (35), pp. 268–84.

[54] On the history of Sweden's role in post-war development aid, and Palme's role, see Berg, Lundberg and Tydén, op. cit. (35), pp. 427–35, also Agius, op. cit. (17), pp. 90–119.

[55] DeGrieff, op. cit. (52).

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Science and technology were particularly suitable fields for Swedish initiatives in the international arena. Sweden's role as a non-aligned nation in two world wars, as well as the Cold War, strengthened its role as a broker for international collaboration in science.[56] Sven Widmalm has described how Swedish scientists and institutions worked to reintegrate German scholars into the scientific community after the First World War, aiming to align ideals of political neutrality with scientific universalism.[57] The Nobel Prizes, with their carefully cultivated aura of scientific impartiality, can be read as a negotiation of inclusion and exclusion during the world wars and in the years immediately after.[58] The Nobel Foundation was, of course, very much aware of the synergies between peace and scientific universality in a small-state setting. In 1971, the Norwegian Nobel Institute organized a Nobel Symposium on Small States in International Relations – originally intended to focus on Scandinavia, but broadened to include perspectives from developing countries.

The Nobel Foundation provided goodwill in the field of scientific excellence, as well as attractive meeting places at its lavish prize-giving celebrations each December. The Nobel Foundation also plugged the IFS into its own science policy networks. The IFS was given a prominent place on the agenda at a joint meeting of the Nobel and Rockefeller Foundations on science and development at the Villa Serbelloni in October 1971. In 1973, the Norwegian Nobel Institute devoted a symposium similarly to issues of science and development, and although the ostensible theme concerned the role of the UN, the newly founded IFS and other independent organizations received most of the attention. Ideas were floated for a Nobel Symposium devoted exclusively to the IFS, but never realized.[59]

'Goodwill', as Chagas had put it, for the foundation as well as for Sweden was a central concern for the Swedish members of the working group. Throughout the planning process in 1971, they lobbied both IFS supporters and Swedish officials to favour Stockholm as the foundation headquarters. While the organizers had failed to engage Palme for the Foresta meeting, they continued to lobby for his support of the IFS project. On returning from the ACAST meeting in March 1971, Brohult informed Palme of the plans to place the working secretariat – and most likely the permanent secretariat – in Stockholm. As similar projects were 'in the air', Brohult argued that the location of the IFS to Stockholm would establish Sweden as a centre for this expanding international scientific cooperation, and that an official statement of goodwill from Sweden would further encourage such projects. On a more practical level, Brohult sought the support of the Swedish government for the impending launch of the foundation, lobbying several government ministers, while Robert Marshak approached Alva Myrdal, whose long-standing involvement in international issues of peace and development could provide support and visibility for the project.[60] Brohult thus

[56] For a global perspective on Cold War science see Oreskes and Krige, op. cit. (7); Heyck and Kaiser, op. cit. (7).

[57] Sven Widmalm, '"A superior type of universal civilisation": science as politics in Sweden, 1917–1926', in Rebecka Lettevall, Geert Somsen and Sven Widmalm (eds.), *Neutrality in Twentieth-Century Europe: Intersections of Science, Culture, and Politics after the First World War*, London: Routledge, 2012, pp. 65–89; Sven Widmalm, 'Science and neutrality: the Nobel Prizes of 1919 and scientific internationalism in Sweden', *Minerva* (1995) 33 (4), pp. 339–60.

[58] On the Nobel Foundation's role in the period after the First World War see Widmalm, 'Science and neutrality', op. cit. (57). However, the neutrality of Sweden and the Nobel Prize institutions during the First World War has been questioned. Robert Marc Friedman, '"Has the Swedish Academy of Sciences ... seen nothing, heard nothing, and understood nothing?" The First World War, biased neutrality, and the Nobel Prizes in science', in Lettevall, Somsen and Widmalm, op. cit. (57), 90–114.

[59] Arne Tiselius, Carl-Göran Hedén and Sam Nilsson, all deeply involved in the organization and funding for Nobel activities, appeared as representatives for the new foundation at conferences, at symposia and in negotiations with potential backers.

[60] Brohult to Palme, 15 March 1971, file 'KVA internationellt. IFS 1970–1972', Archives of the Royal Swedish Academy of Sciences, Stockholm. See also Båveryd's informal notes, 'LBåv. jul-75', file 'PM Presentationer m.m. 1974–1975', Archives of the International Foundation for Science, Stockholm.

appealed both to the perceived status of Sweden as a player in international policy towards developing countries, and to its political ambitions to strengthen that image.

In the eyes of the IFS organizers, the correspondence between scientific and political neutrality, and the commitment to developing countries, combined to make Sweden suited to assume a central role in furthering science and development. The Swedish academies were interested in strengthening their role in international development issues, using the capabilities and resources of the Swedish state to do so. The American IFS promoters were anxious to downplay the American angle in order not to alienate states and institutions from the East and South. Their experience in international cooperation – not least the work of Marshak and Salam on the ICTP – led them to favour Sweden. As the Icelandic diplomat Gunnar Schram delicately put it at the Nobel Symposium on small states in 1971, the Nordic states, with their democratic traditions, relative non-alignment and small size, were 'comparatively non-suspect in the field of international relations'.[61] In this sense, the value of small states in international relations was as much shielding a great power from its own reputation as cultivating their own virtues. Finally, all actors were concerned to strengthen the role of individual scientific institutions in relation to international organizations. As independent actors, they could find a niche in the crowded organizational landscape, as well as carve out new roles for old institutions whose positions in national administrative structures were being eroded.[62]

Although they wanted to take advantage both of the goodwill towards Sweden in the international community, particularly among developing countries, and of the goodwill on the part of Swedish institutions in funding and supporting the new foundation, the promoters of the IFS were wary of too close an association with the Swedish state. In the event the foundation was permanently placed in Stockholm – as seemed likely – it would rub shoulders with the newly established Swedish International Development Cooperation Agency (SIDA). While SIDA helped raise awareness and involvement in development issues, it might also constrain the objectives and areas for research aid according to its own priorities, should the IFS be formally linked to the Swedish government.[63] While eliciting their support, the IFS organizers wanted to avoid the meddling of Swedish government agencies, particularly SIDA, and take advantage of the favourable legal status of independent foundations in Sweden.[64] More broadly, they wanted to avoid the bureaucracy and political pressure associated with international organizations. While a close connection with UNESCO would facilitate relations with the nations of the Eastern bloc, there was a shared frustration over the ineffective handling of questions of science and technology within the UN system. In fact, a 1973 Nobel Symposium set up to discuss the role of UN agencies in science and technology nevertheless devoted almost half its presentations to non-UN agencies, among them two papers on the IFS.[65] The IFS founding members were themselves scientific societies and research institutions.

[61] Gunnar Schram, 'The role of the Nordic states in the U.N.', in August Schou and Arne Olav Brundtland (eds.), *Small States in International Relations*, Uppsala: Almqvist and Wiksell, 1971, pp. 123-7, 127.

[62] See e.g. Johan Kärnfelt, Karl Grandin and Solveig Jülich (eds.), *Knowledge in Motion: The Royal Swedish Academy of Sciences and the Making of Modern Society*, Göteborg: Makadam, 2018.

[63] 'LBåv. jul-75', file 'PM Presentationer m.m. 1974–1975', Archives of the International Foundation for Science, Stockholm. On Swedish research aid see Veronica Brodén Gyberg, *Aiding Science: Swedish Research Aid Policy 1973–2008*, Linköping: Linköping University, 2013.

[64] On the status of foundations in Sweden, see letter from Lars Hjerner to the Royal Swedish Academy of Engineering Sciences, undated (received 17 February 1971), file 'IFS 1971', Archives of the International Foundation for Science, Stockholm. On the development of SIDA's place in the Swedish bureaucratic landscape see Berg, Lundberg and Tydén, op. cit. (35), pp. 354–65.

[65] August Schou and Finn Sollie (eds.), *Coordination in the Field of Science and Technology: The Role of the Specialized Agencies of UN*, Oslo: Universitetsforlaget, 1974.

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These members would guarantee a focus on pure science and scientific excellence, aiming to promote the scientific elites of developing countries so that they, in their turn, could shape their own scientific environment unfettered by corruption and bureaucracy.

Conclusion

In their book on international conferences, Mike Heffernan and his collaborators emphasize conferences as creative events, 'defining the terms and conditions under which permanent international institutions [operate]'.[66] The groundwork for the Foresta conference on the IFS proposal in July 1970 was laid at several Pugwash conferences and UN meetings leading up to it. The conference was carefully staged in terms of participants, themes and location. In that sense, it may not have been creative in itself, but it was nevertheless formative. It assembled a cast of characters that would remain relatively stable – with the significant exception of Pierre Auger – throughout the process of establishing the IFS. It did so in a place which would prove central to the structure and operation of the IFS: Sweden offered both neutrality and activism, independence and government support. Finally, it was an event designed to publicize the foundation to Swedish and international audiences in the emerging field of development science. Nationally, it was an invitation to government actors to further bolster Swedish 'active neutrality'; internationally, it was a way for predominantly Western institutions to signal their commitment to East–West as well as North–South relations.

The development of the IFS demonstrates the interdependence of conferences and organizations, not only in specific events such as the Foresta conference, but in the infrastructure they provided for the planning process. This infrastructure appears simultaneously as an almost invisible feature of international science policy, and as a political problem. As sites of the OECD, UNESCO, UN and ACAST, Paris and New York attracted an array of assemblies and conferences, and even institutions such as ICIPE and ICTP – based in Nairobi and Trieste respectively – sometimes scheduled meetings in London or Stockholm; making them 'convenience spaces' as well as 'convergence spaces' for the scientists and policy makers planning the IFS. At the same time, the places and organizations of this infrastructure could have inconvenient political associations. In this context, Stockholm could be presented as both place and placeless, national and international, desirable in its political, scientific and geographical neutrality. This neutrality was reinforced by the non-governmental status of the IFS. At a 1970 Pugwash meeting, the two American academicians, Murray Todd and John Voss, both fresh from the Foresta conference, presented a recipe for how international scientific institutions should be established in the developing world: by a consortium of academies.[67] 'For scientists, through scientists, by scientists' – and preferably in Sweden.[68]

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[66] Heffernan *et al.*, op. cit. (11), p. 3.

[67] Murray Todd and John Voss, 'The Consortium of Academies: a new way to found international scholarly institutions', *Bulletin of the Atomic Scientists* (1971) 27(1), pp. 29–32.

[68] The words are Pierre Auger's, in 'Report of the discussion of a proposed international science foundation, July 23–24, 1970', file 'Olle E IFS History', in the Archives of the International Foundation for Science, Stockholm.

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