

THE
NOBEL
PRIZE



ANNUAL REVIEW
THE NOBEL FOUNDATION

•
2020

Nobel Week Lights

On the façade of the Stockholm City Hall, pictures from the outer corners of space were shown in collaboration with Rymdstyrelsen (the Swedish National Space Agency) and the European Space Agency. It was a tribute to the Nobel Prize in Physics 2020, which was awarded for the discovery of the universe's strangest phenomenon – black holes. The spectacular installation *Space*, by PXLFLD and Lumination of Sweden, became one of the largest projection mapping projects ever carried out in Stockholm.

PHOTO: PER KRISTIANSEN



Vidar Helgesen, Executive Director of the Nobel Foundation since 1 January 2021.

PHOTO: CLÉMENT MORIN

It took over the role of Executive Director of the Nobel Foundation in January 2021, after a unique year in the history of the Nobel Prize. It was also a year of innovation.

The Nobel Week in December assumed new formats, featuring a digital celebration. The laureates received their medals and diplomas in their home countries. Our public events were conducted in new ways, and in some cases they reached a new and larger audience. As an organisation, we learned a lot during 2020 – lessons that we will carry with us in the future.

The fact that the Nobel Prize awarding institutions chose to nominate Nobel Prize laureates was very well received by a world that longed for positive news when so much else was being cancelled. Highlighting the importance of scientific research and cross-border collaboration has been an important task for us during a year dominated by the pandemic. It is a task that will be no less important in the future. In the light of previous medical advances, we can draw attention to the monumental scientific effort that resulted in the rapid development of new vaccines against COVID-19. We can also see the need for a mobilisation against repression of science, resistance to facts and the wave of disinformation we have witnessed during the pandemic.

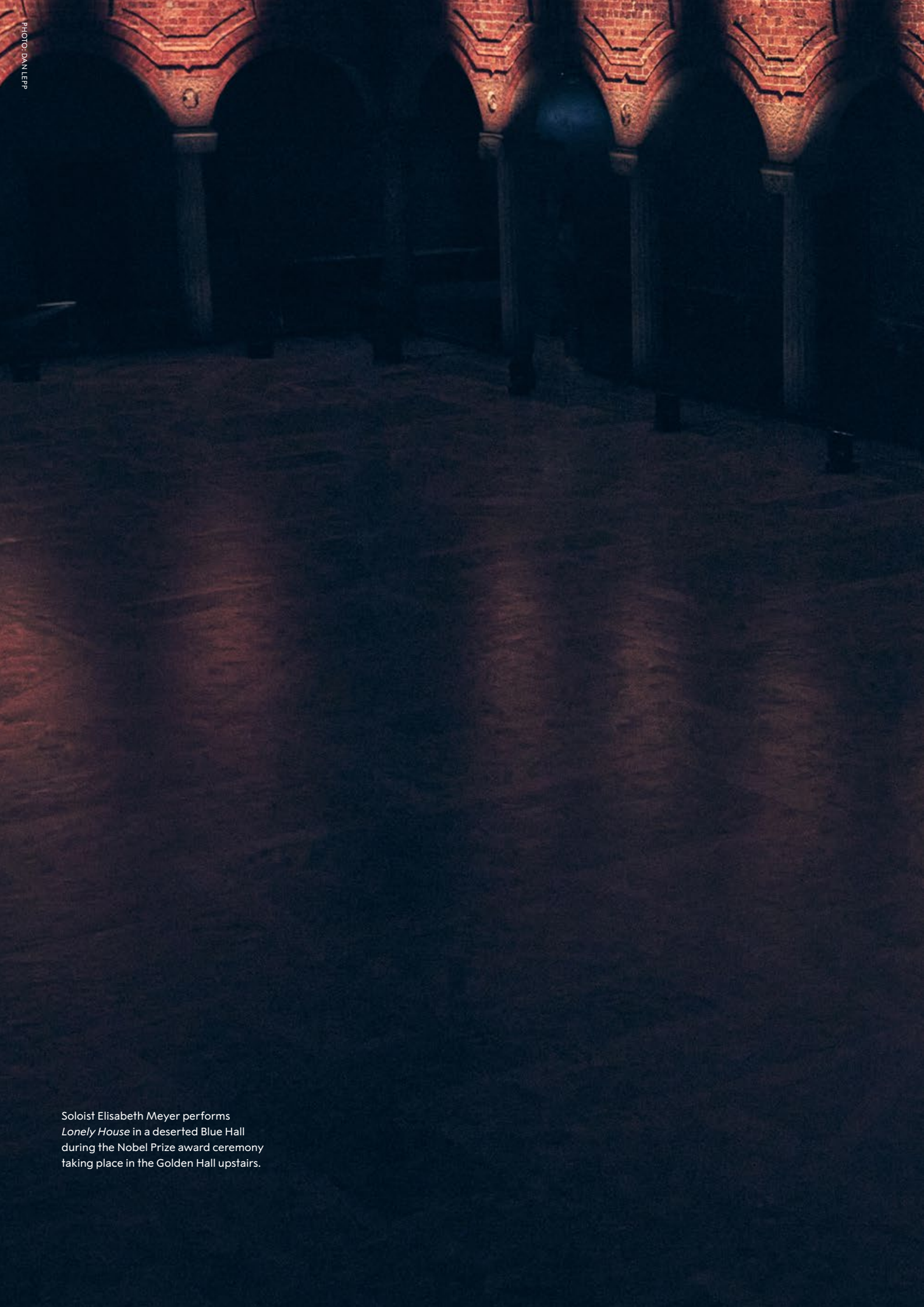
The Nobel Prize is a positive force in such a mobilisation because it includes many strong and inspiring stories about human progress in difficult situations. About the importance of knowledge to

enable decision makers to make informed choices, about freedom of expression and the importance of the written word for a free and enlightened public, and about peaceful dialogue and conflict resolution as the basis for a free society and human rights.

The Nobel Prize's unique combination of subject areas gives us the opportunity to generate public engagement in the achievements that are being rewarded. We do this when the new laureates are announced in October, when the prizes are awarded in December – and every day through our extensive public outreach activities on an international basis.

In our public activities, we can address important issues in which the discoveries and achievements of Nobel Prize laureates play a role. One current example is the climate change crisis. During April 2021 – in collaboration with the US National Academy of Sciences and the Potsdam Institute for Climate Impact Research – we are organising the first Nobel Prize Summit on the theme *Our Planet, Our Future*. During a three-day period, several Nobel Prize laureates and other experts, activists and decision-makers will take on the entirety of the complex challenges to our planet and the solutions that the world needs to implement quickly and on a large scale. The event was watched by a worldwide digital audience of 17,000 people.

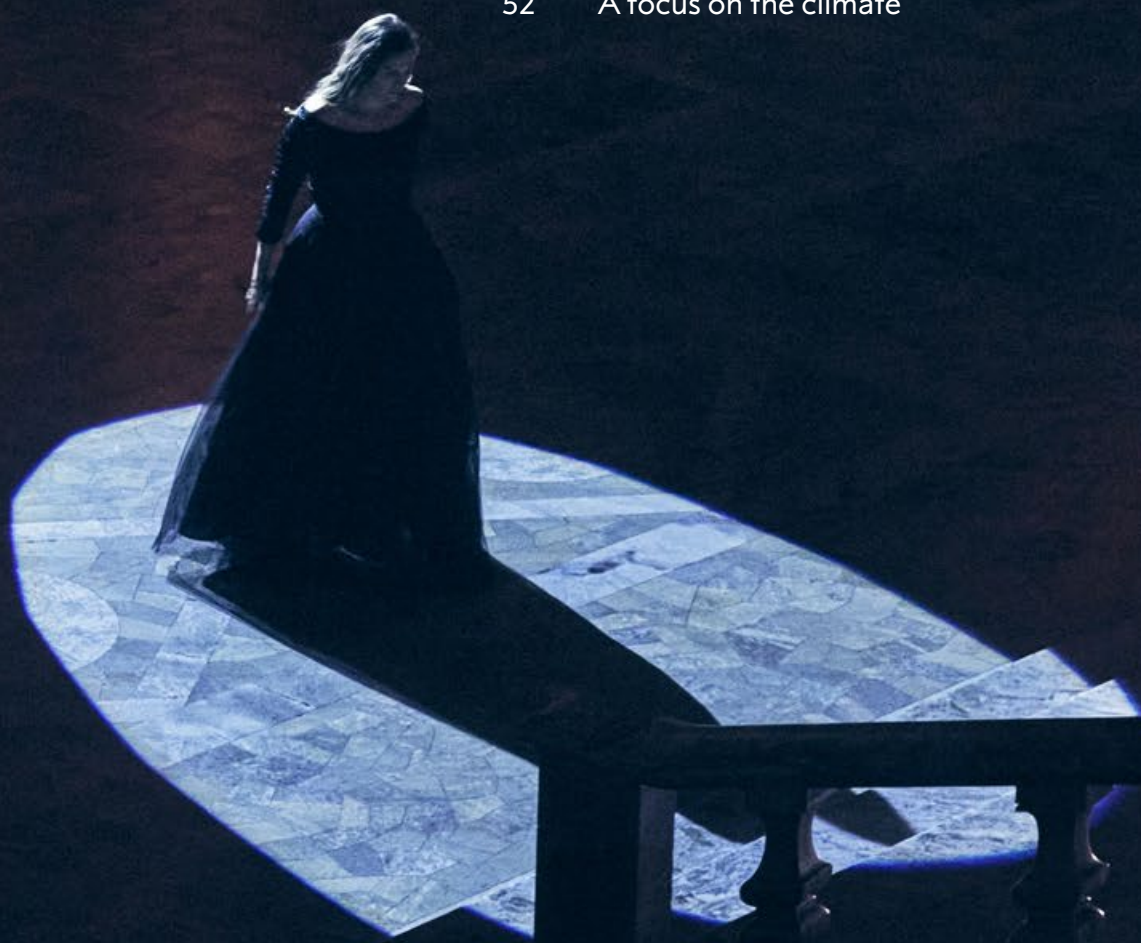
This is just one illustration of the power of the Nobel Prize in promoting the greatest benefit to humankind.



Soloist Elisabeth Meyer performs
Lonely House in a deserted Blue Hall
during the Nobel Prize award ceremony
taking place in the Golden Hall upstairs.

Table of contents

6	The 2020 Nobel Prize laureates
10	The Nobel Prize in Literature 2020
12	The Nobel Peace Prize 2020
14	Nobel Calling Stockholm
16	A digital Nobel Peace Prize exhibition
18	A beacon of light in the darkness
22	Highlights 2020
28	Knowledge for all in new formats
30	Documentary films highlight the Nobel Peace Prize
32	The outdoor cinema at Sergels torg
34	Nobel lunch and Star Hunt inspire students all over Sweden
36	The Nobel Prize banquet
40	New design by skilful craftsmanship
42	Bottles from Alfred Nobel's laboratories analysed
44	The Nobel Prize awarding institutions
46	The Nobel Foundation
48	To engage, inspire and spread knowledge
50	Highlights in December
52	A focus on the climate





The 2020 Nobel Prize laureates

During the spring of 2020, the Nobel Prize awarding institutions decided they would select new Nobel Prize laureates despite the ongoing pandemic. Thanks to close collaboration with Swedish diplomatic missions abroad, all laureates were able to receive their medals and diplomas under safe conditions in their countries of residence.

THE NOBEL PRIZE IN PHYSICS 2020

With one half to

ROGER PENROSE

“for the discovery that black hole formation is a robust prediction of the general theory of relativity”

and the other half jointly to

REINHARD GENZEL

ANDREA M. GHEZ

“for the discovery of a supermassive compact object at the centre of our galaxy”

Three laureates shared the Nobel Prize in Physics for their discoveries about one of the most exotic phenomena in the universe, the black hole. Roger Penrose showed that the general theory of relativity enables to the formation of black holes. Reinhard Genzel and Andrea M. Ghez discovered that an invisible and extremely heavy object governs the orbits of stars at the centre of our galaxy. A supermassive black hole is the only currently known explanation.

PHOTO: FERGUS KENNEDY



Roger Penrose

PHOTO: ANNETTE BUHL



Andrea M. Ghez

PHOTO: BERNHARD LUDWIG



Reinhard Genzel

THE NOBEL PRIZE IN CHEMISTRY 2020

EMMANUELLE CHARPENTIER

JENNIFER A. DOUDNA

“for the development of a method for genome editing”

Emmanuelle Charpentier and Jennifer A. Doudna have discovered one of gene technology’s sharpest tools: the CRISPR/Cas9 genetic scissors. Using these, researchers can change the DNA of animals, plants and microorganisms with extremely high precision. This technology has had a revolutionary impact on the life sciences, is contributing to new cancer therapies and may make the dream of curing inherited diseases come true.

PHOTO: BERNHARD LUDWIG



Emmanuelle Charpentier

PHOTO: BRITTANY HOSEA-SMALL



Jennifer A. Doudna

THE NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE 2020

HARVEY J. ALTER
MICHAEL HOUGHTON
CHARLES M. RICE

“for the discovery of Hepatitis C virus”

This year’s Nobel Prize is awarded to three scientists who have made a decisive contribution to the fight against blood-borne hepatitis, a major global health problem that causes cirrhosis and liver cancer in people around the world. Harvey J. Alter, Michael Houghton and Charles M. Rice made seminal discoveries that led to the identification of a novel virus, Hepatitis C virus. Prior to their work, the discovery of the Hepatitis A and B viruses had been critical steps forward, but the majority of blood-borne hepatitis cases remained unexplained. The discovery of Hepatitis C virus revealed the cause of the remaining cases of chronic hepatitis and made possible blood tests and new medicines that have saved millions of lives.

PHOTO: FLORENCE MONTAIRE



Charles M. Rice

PHOTO: HAN HOUGHTON



Michael Houghton

PHOTO: JOY ASICO



Harvey J. Alter

THE NOBEL PRIZE IN LITERATURE 2020

LOUISE GLÜCK

“for her unmistakable poetic voice that with austere beauty makes individual existence universal”

The American poet Louise Glück made her debut in 1968 with *Firstborn*, and was soon acclaimed as one of the most prominent poets in American contemporary literature. She has published twelve collections of poetry and some volumes of essays on poetry. All are characterized by a striving for clarity.

PHOTO: DANIEL EBERSOLE



Louise Glück

THE NOBEL PEACE PRIZE 2020

WORLD FOOD PROGRAMME

“for its efforts to combat hunger, for its contribution to bettering conditions for peace in conflict-affected areas and for acting as a driving force in efforts to prevent the use of hunger as a weapon of war and conflict”

The World Food Programme is the world’s largest humanitarian organisation addressing hunger and promoting food security. In 2019, the WFP provided assistance to close to 100 million people in 88 countries who are victims of acute food insecurity and hunger. In 2015, eradicating hunger was adopted as one of the UN’s Sustainable Development Goals.



PHOTO: REIN SKULLERUD

World Food Programme (David Beasley, Executive Director of WFP).

THE SVERIGES RIKSBANK PRIZE IN ECONOMIC SCIENCES IN MEMORY OF ALFRED NOBEL 2020

PAUL R. MILGROM ROBERT B. WILSON

“for improvements to auction theory and inventions of new auction formats”

The two laureates, Paul R. Milgrom and Robert B. Wilson, have studied how auctions work. They have also used their insights to design new auction formats for goods and services that are difficult to sell in a traditional way, such as radio frequencies. Their discoveries have benefitted sellers, buyers and taxpayers around the world.



PHOTO: ELENA ZHUKOVA

Paul R. Milgrom

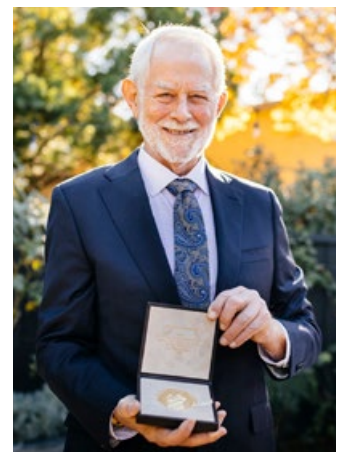


PHOTO: ELENA ZHUKOVA

Robert B. Wilson



The Nobel Prize in Literature 2020

"Louise Glück is a writer not only of contradictions and austere reflection. She is also a poet of renewal, with few coequals. Even if her poetry is written in retrospect, and seems bound to the apple tree as it was seen once in childhood, one of her keywords is change. She teaches us that the moment of renewal is also the arrival of words. Her inner driving force is a spiritual hunger and an exceptional reverence for the possibilities of poetry. The leap of renewal can employ the seemingly plain diction of thoughtful parables, but also comedy and biting wit.

Extract from the speech presenting the Nobel Prize in Literature by Professor Anders Olsson, Member of the Swedish Academy, Chairman of the Nobel Committee for Literature, 10 December 2020.



The Nobel Peace Prize 2020

“This Nobel Peace Prize is more than a thank you. It is a call to action. Because of so many wars, climate change, the widespread use of hunger as a political and military weapon, and a global health pandemic that makes all of that exponentially worse – 270 million people are marching toward starvation. Failure to address their needs will cause a hunger pandemic which will dwarf the impact of COVID.”

David Beasley, Executive Director of the World Food Programme, in his acceptance speech on 10 December 2020





Deir Hafer in Syria is located 60 km from Aleppo and 12 km from the nearest market, so the 800 people who live here rely heavily on food assistance from WFP to meet their daily needs.



Artist Fredrik Paulsen's colourful outdoor cinema on Sergels torg was open 24 hours a day.

Nobel Calling Stockholm

The eyes of the world are on Stockholm and Oslo during the week in October when the new Nobel Prizes are announced. A week when the importance of research, science, literature and peace are in focus.

The global pandemic and the COVID-19 situation had a broad impact on our societies in 2020. Many events were postponed or cancelled entirely. It was therefore gratifying that last spring the Nobel Prize awarding institutions decided to carry out the investigative work that would enable them to announce new Nobel Prize laureates in October. This was a year when it was especially important to highlight scientific, literary and humanitarian efforts that provided inspiration and hope for the future.

The public programme points known as Nobel Calling Stockholm were also carried out during the weeklong announcement period, but with a limited audience.

For the first time, they were also live-streamed so they could be viewed online. At Kulturhuset, Stockholm's municipal cultural centre, members of the Nobel Committees that selected the laureates gave a Crash Course on the year's three science prizes. In a broadcast from the Stockholm Public Library, you could listen to an in-depth conversation about the year's literature laureate with members of the Nobel Committee. The week's programme also included a series of seminars related to COVID-19, the Nobel Prize Teacher Summit *Migration and Movements* and a peace panel featuring among others Beatrice Fihn, Executive Director of the International Campaign to Abolish Nuclear Weapons (ICAN),

which received the 2017 Nobel Peace Prize. The whole week was framed by a colourful outdoor cinema on Sergels torg, a square in central Stockholm, which was open 24 hours a day.

The events during Nobel Calling Stockholm 2020 were organised by the Nobel Prize Museum in collaboration with the City of Stockholm, Karolinska Institutet (a medical university), the Royal Institute of Technology, Stockholm University, Stockholm Public Library, Kulturhuset Stadsteatern, Forum/Debatt, Stockholm City Hall, Stockholm City Archives, the Swedish Research Council and the Riksbank. The events were presented both physically and digitally.



One school class participated daily in the announcements which was broadcast live at the museum.



Carin Klaesson, Henrik Petersen, Mikaela Blomqvist, Rebecka Kärde and Anders Olsson discussed the 2020 Nobel Prize in Literature at the Stockholm Public Library.



One of the conflicts illustrated in the 2020 Nobel Peace Prize exhibition is in Syria, where controlling food and emergency aid has been an important war strategy for the regime during the ongoing civil war.



As soon as a new Nobel Peace Prize laureate is announced, the Nobel Peace Center updates the area of its permanent exhibition known as the Nobel Field.

A digital Nobel Peace Prize exhibition

For the first time ever, the Nobel Peace Center's exhibition about the year's Nobel Peace Prize appeared in a digital version that could be viewed worldwide.

The 2020 Nobel Peace Prize exhibition could be seen by everyone, even though the museum in Oslo was closed due to the pandemic. For the first time, the Nobel Peace Center collaborated with the Norwegian Broadcasting Corporation (NRK) on the photo exhibition about the year's laureate. The exhibition was published online on 10 December, the same day that the World Food Programme (WFP) was awarded the Nobel Peace Prize. By the end of the year, the exhibition had been viewed by more than 18,000 people.

"In a year where the pandemic makes physical exhibition visits difficult, we are happy to be able to reach a large audience with our Peace Prize exhibition through NRK," says Kjersti Fløgstad, Executive Director of the Nobel Peace Center.

The 2020 Nobel Peace Prize exhibition presents a photo essay by renowned Ethiopian photographic artist Aïda

Muluneh. In ten powerful images, she illustrates different conflicts in which food was used as a weapon of war – a weapon that primarily affects the civilian population. "Each frame is a story, a story deeply embedded with moments, emotions, pain, loneliness, rage and the deep sadness that becomes the plight of those caught between the crossfires of political agendas," Muluneh says.

On 11 December the Nobel Peace Center organised an online conversation with both photographer Aïda Muluneh and David Beasley, Executive Director of WFP. "Aïda's photos bring to life a reality that we see out there every day", Beasley said during the conversation.

Due to COVID-19 the Nobel Peace Center has been closed since November 2020, but a physical version of the Nobel Peace Prize exhibition will be in place for public viewing when the center reopens.



After almost a year of social distancing, many people were touched by the light installation on the fifth Hötorget skyscraper in Stockholm's central business district: the projection *I want to hold you in my arms but can't* by Emma Hjortenklew Wassberg and Fredrik Matz.

A beacon of light in the darkness

With light installations illuminating many iconic locations and buildings, Nobel Week Lights invited Stockholm residents to celebrate the week. This completely new cultural experience provided a beacon of light in the darkness when we needed it most.

Inspired by international festivals such as the world-famous *Fête des Lumières* in Lyon, France, Nobel Week Lights illuminated about fifteen places in Stockholm with light installations. Many of the participating artists and light designers explored new ideas and enabled us to reimagine how we experience our urban environment. They wove together art and technology in playful ways. Some of their works were inspired by the discoveries and

achievements of Nobel Prize laureates for the greatest benefit to humankind. During a year when many of the Nobel Week activities were entirely digital, this was a cultural experience that could be enjoyed outdoors at a safe distance from others.

According to the City of Stockholm, the light installations were visited by more than 200,000 people. A digital tour of the Nobel Week Lights was also available during 5–13 December. The Stockholm

City Hall, Sergels torg, Konserthuset Stockholm, the Royal Dramatic Theatre, Stockholm City Museum and Nobel Prize Museum were among the buildings and places that served as settings for these spectacular and artistic light installations. Nobel Week Lights was initiated and produced by Annika Levin, Alexandra Manson, Lara Szabo Greisman and Helmet Experience Design in collaboration with the Nobel Prize Museum and the City of Stockholm.



PHOTO: PER KRISTIANSEN

More than 1,300 visitors uploaded their own photos and videos on Instagram, using the hashtag #nobelweeklights. The Nobel Week Lights campaign reached more than a million people on social media.





Sense Light Swing, by Alexander Lervik, was an impressive light artwork that visitors themselves helped to create as they swung back and forth in the darkness, both in Kungsträdgården park and in Skärholmens centrum.

962

Nobel Laureates

Since 1901, the Nobel Prize and the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel have been awarded to 962 individuals and organisations.

- Laureates: 962
- Prize categories: 6
- Prize-awarded women: 57
- Prize-awarded organisations: 25
- Youngest laureate: 17 years
- Oldest laureate: 97 years

The Nobel Prize website and social media channels

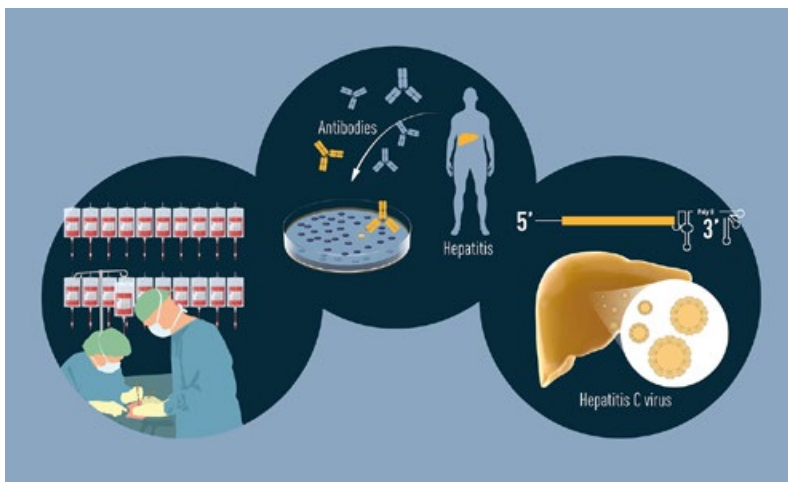
- Nobelprize.org had 19.6 million visitors during 2020, up by 12% compared to 2019.
- The number of Instagram followers rose by 191% during 2020.
- The number of YouTube followers climbed by 103% during 2020.
- In 2020, Nobel Prize digital channels surpassed 6.5 million followers.
- During the prize announcement period in October, the Facebook account reached 8.6 million people per day, an increase of 54% from the previous year.
- The Nobel Week programmes in Stockholm and Oslo were made digitally available and reached a daily average of more than 900,000 viewers on Facebook and 1.3 million on Twitter.



PHOTO: CLEMENT MORIN

“This year it was especially important to select Nobel Prize laureates and to award prizes. During the past decade, we have seen increased scepticism, if not disdain, towards science. Meanwhile the ongoing pandemic has made it obvious how vital knowledge and science are.”

Lars Heikensten, Executive Director of the Nobel Foundation from 2011 to 2020, on the importance of awarding Nobel Prizes during 2020 despite the pandemic.



©NOBEL COMMITTEE FOR PHYSIOLOGY OR MEDICINE, ILL. MATTHIAS KARLEN

Part of the Nobel Prize Lesson on the 2020 Prize in Physiology or Medicine.

Nobel Prize Lessons within 24 hours

Every October we learn what discoveries and achievements have been rewarded by the year's Nobel Prizes. A day after each announcement, a complete package of lesson materials on each respective prize can be downloaded from nobelprize.org by teachers all over the world. There

are also Nobel Prize Lessons on such themes as Alfred Nobel, human rights and sustainable development. Read more about Nobel Prize Lessons and the broad school and educational activities for students and teachers offered by Nobel Prize Museum on page 34.



Nadia Murad's visit to Stockholm

The Nobel Peace Prize laureate Nadia Murad visited Nobel Prize Museum in February 2020 and signed a chair in the museum's Bistro, like many laureates before her. Murad was awarded the 2018 Nobel Peace Prize together with Denis Mukwege for their efforts to end the use of sexual violence as a weapon in armed conflicts.



Two new podcast series about the Nobel Prize

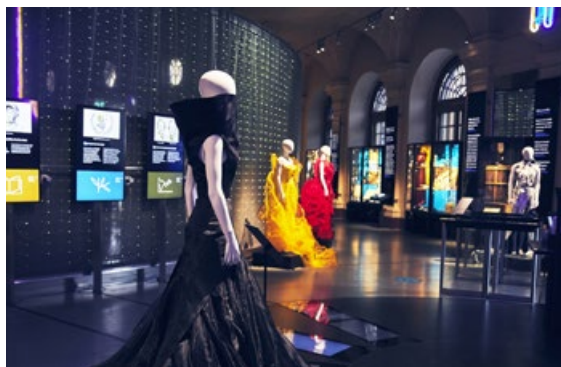
During 2020 two new podcast series were launched. In *Nobel Prize Conversations*, listeners can acquaint themselves with some of the people who have received the Nobel Prize over the years. The host of these conversations is Adam Smith, who also conducts one of the first interviews with the laureates for the official Nobel Prize media channels every October. The conversations in the podcast series centre on motivation, creativity and life choices – both large and small – that have influenced the lives of the laureates.

In the Swedish-language podcast series *Idéer som förändrar världen* (*Ideas Changing the World*), Nobel Prize expert Gustav Källstrand engages with researchers, writers and other experts to discuss ideas related to science, literature and peace. Together they explore the ideas that have been so outstanding that they were rewarded with a Nobel Prize.



The Golden Hall

The bust of Alfred Nobel which we are used to seeing on stage in the Concert Hall appeared instead in the Golden Hall at Stockholm City Hall, where the Nobel Prize award ceremony took place. Floral decorations by Per Benjamin.



Nobel Creations

Since 2011 students in the fashion programme at Beckmans College of Design in Stockholm have created free interpretations of the Nobel Prizes. Based on black holes, gene splicing, auction theory, the hepatitis C virus, poetry of Louise Glück, as well as the World Food Programme's efforts to eradicate hunger during 2020 the students created six strong fashion designs that have been on display at Nobel Prize Museum.



New web shop at the Nobel Peace Center

When the Nobel Peace Center in Oslo closed last spring due to the pandemic, it began working to make the fine products in its shop available online.

The Nobel Peace Shop was developed, and people can now buy the Peace Center's sustainable products online – for example these animals made by Edgar in Zimbabwe. He provides work for his family and friends by hammering out animals from recycled car parts. When a bunch of animals are ready, he puts them in big bags and travels to South Africa by bus, hitchhiking or walking. In South Africa, he then sells them to the Peace Center's contact person.



Black holes as fashion

"A vanishingly elegant mystique emanating from spinning black holes pulls entire galaxies into their darkness, where time and space are distorted and become one, and where the rigid meets the elusively fleeting."

Amanda Stuve and Joel Eriksson on their creation inspired by the Nobel Prize in Physics.



Message of joy

Jennifer A. Doudna's reaction after the announcement of the 2020 Nobel Prize in Chemistry was a much-appreciated post that reached over 1.2 million people on Facebook and over 1.3 million people on Twitter.



Slussen the new site of the future Nobel Center

The Nobel Prize shows that ideas can change the world. In an era when facts, science and fundamental human values are being questioned, a place for ideas, knowledge and reflection is needed.

In February 2020, the Nobel Foundation and the City of Stockholm announced that Slussen will be the site of a new house for culture and science, which will offer broad public activities including exhibitions, school programmes, lectures and conversations about the major issues of the future. The Nobel Center will be one of Stockholm's most accessible destinations. It will occupy a fantastic location on the Stadsgårdskajen waterfront next to the Slussen traffic hub in the heart of Stockholm.

Mini-exhibition on viruses

We are in the midst of a pandemic that is impacting people and societies in ways that are hard to grasp. The mini-exhibition *Contagious* about Nobel Prize-awarded research that has expanded our knowledge about viruses, mapped our immune system and developed vaccines can be viewed at nobelprizemuseum.se/en/whats-on/contagious.



Museums join forces to establish a new storage facility



During the autumn of 2020, an initiative was taken for a new materials storage facility where museums, art galleries and theatres in Stockholm could jointly take advantage of and reuse materials from exhibition productions, stage sets and decor.

"This is a fantastic new collaborative effort that brings those of us who work in the cultural sector closer together and reduces the resource consumption from our productions. It is both smart and sustainable to avoid having to throw away materials from previous exhibitions and to be able to reuse things that others have brought in," said Erika Lanner, Director of the Nobel Prize Museum, at the inauguration of the facility.

In addition to the initiator Liljevalchs Gallery, the participants are the Royal Dramatic Theatre, Kulturhuset Stadsteatern, the Royal Opera, the Museum of Performing Arts, Nobel Prize Museum, the Nordic Museum and Stockholm City Museum.



Both during Nobel Calling Stockholm, in conjunction to the announcements during the fall, and during the Nobel Week in December, photos of iconic Nobel Prizes appeared on digital screens around Stockholm City.

THE
NOBEL
PRIZE

NOBELVECKAN
2020

Vi firar årets
Nobelpristagare

Se hela programmet på
nobelprize.org

JCDecaux

Knowledge for all in new formats

The pandemic put a stop to large physical meetings and long-distance travel, but at the same time it speeded up the development of entirely new, creative ways of thinking about how we can spread knowledge and inspire people around the world.

The year was soon filled with stimulating hybrid meetings, digital events and new forms of meetings between Nobel Prize laureates, students, scientists and the business community. These activities reached millions of people and provided many lessons along the way.

“What we have learnt is that we can learn at home but not all the time... Science is about learning from experience and collaboration. In the end we need to be together,” said chemistry laureate Frances Arnold during the 2020 Nobel Week Dialogue. She was one of eight laureates who participated, together with such speakers as Akinwumi Adesina, president of the African Development Bank Group and Mary Robinson, former president of Ireland. The theme of the year’s conference was *The Challenge of Learning*.

Many of the conversations at the Nobel Week Dialogue dealt with how the pandemic has affected and will continue to affect educational systems around the world. Lessons, pitfalls and good examples from our new digital world were highlighted.

Another issue discussed was the challenges we face when many students lack the technical equipment for digital instruction. For the first time, the Nobel Week Dialogue was produced without an audience physically on site. Instead, a global digital audience was reached by a studio production and an event platform that made interaction with the speakers possible. As a result of this digital approach, the conversations remain available on the Nobel Prize

digital platforms, and the discussions will continue to engage and inspire more viewers. As part of the Dialogue, upper secondary students in Gothenburg, Sweden, also had the opportunity to ask questions in a digital conversation with Nobel Prize laureate Ben Feringa.

As part of the Nobel Prize Inspiration Initiative programme, another digital conversation took place. Aaron Ciechanover, Nobel Prize laureate in chemistry, 2004, shared ideas with a Polish audience consisting of students, early-career scientists and the general public. During the conversation, the students were able to ask questions and were also invited to a digital round table discussion – an effective way for both laureates and students to interact with each other. The discussions were about what role science can play in solving future challenges in society, and how scientists can help individuals make the best choices considering the overwhelming quantity of information and disinformation that people face.

“If you do not know the pitfalls you’ll just do it!” This is one bit of advice for the students who took part in a digital conversation with laureate Stefan Hell. The conversation was a foretaste of the Nobel Prize Dialogue Korea, which will be held in hybrid format during 2021. Professor Hell described what it is like to be a scientist and told about the journey he had made that led to his being awarded the 2014 Nobel Prize in Chemistry. The interviewer in this “pre-event” was Adam Smith, chief scientific officer of Nobel Prize Outreach. Jung-Hye Roe, president of the National Research Foundation in Korea, also participated in the discussions.

The pandemic generated new ways of spreading knowledge and of inspiring people globally. Cellist and student conductor Tsepo Kolitsoe Poole talking to Laura Sprechmann, CEO of Nobel Prize Outreach, about music and education.

The studio production during Nobel Week Dialogue enabled interaction between the speakers, who all participated from their home countries. Carin Klaesson, curator at Nobel Prize Outreach, in a conversation about education for all and the challenges of learning.



ALL PHOTOS: CLÉMENT MORIN





Documentary films highlight the Nobel Peace Prize

When Academy Award-winning filmmaker Orlando von Einsiedel took a close look at the Nobel Peace Prize, five powerful stories emerged. These short documentaries deal with individuals and organisations and how they affect societies and people around the world.

Working with the Nobel Prize on this series of films has given me the opportunity to film with some of the most extraordinary and heroic people I've ever met. It has been very rewarding to witness how the Nobel Peace Prize laureates continue to inspire and support people all over the world" says Orlando von Einsiedel about the project.

The films follow an array of inspiring characters and organisations: A team of female Yazidi de-miners in Iraq attempting to clear their land of mines left behind by Islamic State. A Rohingya refugee who has taken it upon himself to reunite family members torn apart

by conflict in the world's largest refugee camp. A man who builds prosthetic legs to help victims of the war in South Sudan to walk again. A team of scientists on an extraordinary mission in Mozambique to help better our understanding of climate change. An orchestra in South Africa that uses music to bring the country together.

The films were made in collaboration between Nobel Prize Outreach, National Geographic and Orlando von Einsiedel. They were released in May 2020 and can be viewed on youtube.com/natgeo and nobelprize.org. The films were also shown at an outdoor cinema at Sergels torg during Nobel Calling Stockholm 2020.



An Unfinished Symphony

This film follows two South African musicians: Tsepo Poee, who grew up in Soweto Township, and Lize Schaap, who grew up in wealthy Pretoria. But today they are both part of a very special orchestra, the Miagi Orchestra. Inspired by the legacy of 1993 Nobel Peace Prize laureate Nelson Mandela, the orchestra aims to help the nation overcome decades of violence, conflict and division through the power of music.



Into the Fire

"One wrong step will cost me my life."

In an area of Iraq destroyed by Islamic State, Hana Khider leads an all-female team of Yazidi de-miners. Their job involves searching for booby traps in bombed-out buildings and fields, where one wrong move means certain death. Even though the devastation caused by Islamic State is still evident and the local people are still suffering, they are trying to forget the past and remain hopeful about the future.

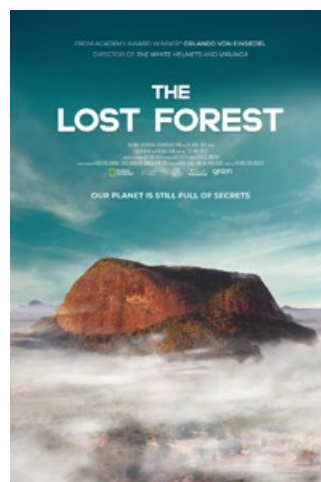
Hana works for the Mines Advisory Group, an organisation that is part of the International Campaign to Ban Landmines (ICBL), which received the Nobel Peace Prize in 1997.



Lost and Found

In the chaos of one of the world's largest refugee camps, we follow Rohingya refugee Kamal Hussein. Equipped only with a microphone, he has taken it upon himself to reunite children with their parents. By enabling family members to find each other again, he is not just helping them. He is also finding peace for himself.

Kamal's work is funded by the United Nations High Commissioner for Refugees (UNHCR), recipient of the Nobel Peace Prize in 1954 and 1981.



The Lost Forest

"The local people know of nobody who has ever been up to the forest."

How would natural habitats develop without human interference? This documentary follows an international team of scientists and explorers on an extraordinary mission – to reach a forest in Mozambique that no human has set foot in.

The team aims to collect data from the forest to help our understanding of how climate change is affecting our planet. But the forest sits atop a mountain, and to reach it, the team must first climb a sheer 100 metre wall of rock.


The scientists' work is based on research conducted by the Intergovernmental Panel on Climate Change (IPCC), recipient of the 2007 Nobel Peace Prize.



Still Human

In 1998 Makur Diet lost his leg in war-torn South Sudan due to a bullet injury. Despairing for his future, Makur considered suicide. But his perspective changed when he finally received a prosthetic leg, which gave him a new sense of purpose. He decided to devote his life to helping others in similar situations. Working with the International Committee of the Red Cross (ICRC), Makur now aspires to create prostheses and help others regain hope.

The ICRC is the only organisation that has received the Nobel Peace Prize three times: in 1917, 1944 and 1963.



The period when the 2020 Nobel Prize laureates were announced in October 2020 was complemented by a dazzling outdoor cinema at Sergels torg, a square in central Stockholm, that showed documentary films by Academy Award-winning filmmaker Orlando von Eisinger. The outdoor cinema was conceived by Fredrik Paulsen, a designer and artist who is famous for creating colourful furniture and installations. The roof of the outdoor cinema was painted by the artist himself and became a fantastic visual experience when viewed from above against the characteristic geometric pattern of Sergels torg.

The five documentaries shown at the cinema were made in collaboration between Nobel Prize Outreach, National Geographic and filmmaker Orlando von Eisinger. The outdoor cinema was built in partnership with the adjacent Kulturhuset (Stockholm municipal cultural centre) and Platsamverkan Sergels torg (a joint effort by the City of Stockholm and property owners in the city centre).





Nobel lunch and Star Hunt inspire students all over Sweden

Nobel Prize Museum offers a broad range of educational activities for students and teachers. They include various kinds of school programmes adapted to the classroom, evening activities for teachers and projects aimed at awakening curiosity about the different areas covered by the Nobel Prize.



PHOTOS: DAN LEPP

"I want to show that we can have festive, really tasty food that is also sustainable for both health and the environment," says Josephine Antwi, Head Chef, Akalla grundskola, here in the kitchen with Fredrik Eriksson.



The dessert in Akalla grundskola's Nobel lunch consisted of fried apples with vanilla mousse.



PHOTO: PRIVATE

The winners of the scientists' prize for best Star Hunt scientific poster went to George Tobieson and Livia Persson, students at Carlssons skola in Stockholm.

The Star Hunt

For the tenth year Nobel Prize Museum organised Help a Scientist, a project that brings together school classes around Sweden with scientists at Swedish universities.

The theme of the 2020 project was *The Star Hunt*, and 1,400 lower secondary students from Malmö in the south to Östersund in the north helped scientists at Chalmers University of Technology in Gothenburg to gather new knowledge about how stars are born. In the digital closing conference and poster session students met 2020 Nobel Prize laureate Reinhard Genzel and Swedish astronaut Christer Fuglesang.

Nobel lunch at schools

Many schools in Sweden celebrate the Nobel Day by inviting students to an extra festive school lunch. One of them is Akalla grundskola, a public primary school in Stockholm. The school's head chef, Josephine Antwi, created a three course menu that was both sustainable and sumptuous. Together with Fredrik Eriksson, who has won many prizes for his food and is also a gastronomic advisor for the Nobel Prize banquet, she treated students to a vegetable cocktail, climate-smart steak and fried apples with vanilla mousse. The recipe of the Akalla school's Nobel lunch aims to inspire other schools and chefs to prepare something extra festive.

Nobel Prize Lessons

In October every year, Nobel Prize awarding institutions announce who are the year's Nobel Prize laureates. Within 24 hours after each announcement, a package of digital school materials on that topic is published online in English and Swedish. Each lesson includes a slideshow plus a teacher's manuscript, a student worksheet with questions, a short video and a simple teacher's guide – all to enable teachers to present the lesson about this year's Nobel Prize as easily as possible. There are also thematic lessons on the Nobel Prize, Alfred Nobel, human rights, sustainable development and other topics.



The Nobel Prize banquet

In early 2021, the first major exhibition ever about the Nobel Prize banquet was completed at the Nobel Prize Museum. The exhibition focuses on everything that makes the banquet in the Blue Hall a unique event.

Planning and throwing a party for 1,250 guests that is followed by all of Sweden through an hours-long television broadcast demands creativity, respect for traditions and a particular attention to detail. In the exhibition, you can follow the chefs' creative process as they transform Swedish ingredients into a delicious and beautiful menu. You'll see dresses that left a lasting impression and carried strong messages about different topics, such as the climate change. Listen to the banquet speeches given by laureates at the event. These speeches make it clear how important the banquet is for those that are being honoured for their contributions to science, literature and peace.

Since the 1960s, the Nobel Prize Banquet has been broadcast live on television, making it a party for many TV viewers, and today it is regarded by ethnologists as a contemporary folk tradition. Many people have taken the banquet to heart and celebrate

the Nobel Day in formal attire, whether watching the festivities on television at home, at school or over lunch in their assisted living facility.

The food, the clothing, the decorations and the laureates' speeches are in the spotlight in the new exhibition. It takes a close look at various creative processes regarding the food served and tells how chef Sayan Isaksson made use of every part of an onion in order to reduce food waste when he composed the Nobel menu. There is also a selection of photographs by the renowned Anders Petersen taken at the banquet on display. As soon as the museum opens, we welcome you to join the party!

Curator: Clara Åhlvik, Head of Exhibitions, Nobel Prize Museum

Set Designer: Sahara Widoff

Exhibition Designer: Birger Lipinski

Lighting Designer: Tobias Rylander

“Today one of these fairy tales came true; I am dining with the King and the Princesses in a golden hall, surrounded by the gracious ladies and gentlemen of their court.”

Wassily Leontief, economic sciences laureate 1973



ALL PHOTOS: DAN LEPP

Gunnar Cyrén's beautiful baton has been lent by the City of Stockholm and is on display in the exhibition along with several creations worn at the banquet, such as Queen Silvia's evening gown created by the fashion house Nina Ricci, and King Gustaf's tailcoat. Both lent by the Swedish Royal Court.



Raspberries were the recurring theme in 2019's elegant dessert at the Nobel Prize banquet. Pastry chef Daniel Roos took inspiration from his daughter's toy kitchen to create the shape of the raspberry mousse. A pile of green plastic peas became a silicone plate which was used to create a large raspberry on the dessert plates.





Within the framework of the project *Stockholm*, the renowned photographer Anders Petersen has portrayed the people who work, serve, eat and dance at the banquet.



New design by skilful craftsmanship

All Nobel Prize laureates receive a Nobel Prize diploma and a medal presented in a unique case. These are manufactured according to traditional Swedish craftsmanship and obtained a new design last year.

Leonard Gustafsson's bookbinding atelier in Stockholm is responsible for creating the Nobel Prize diplomas and medal cases. Every little detail is taken into consideration when making them. In order to have the diploma cases ready in time for December, work must begin on them in June. During the Swedish summer, work starts on the base, made out of layers of cardboard which must be glued, held under pressure, and left to dry for several months. The base is ground and shaped with a grinding machine and by hand. When the base is done, they prepare the

coloured goat skin by cutting and grinding it. Inside each diploma the official motivation and, in some prize categories, a personalised artwork is displayed.

The medal cases are created in a similar way – a base covered with soft goat leather. While the diploma covers are made in different colours depending on the prize category, all medal cases are made in brown leather.

'The Nobel Prize' wordmark is now stamped on the front of the medal case and diploma while the case enclosing the diploma carries Alfred Nobel's vision "for the greatest benefit to humankind".



"It is never boring to make a Nobel Prize diploma, I will tell you! We all work together during the whole process and have different discussions for every moment, so we learn from year to year of course."

Carina Stockenberg, one of the owners of Leonard Gustafsson's bookbinding atelier.



ALL PHOTOS: DAN LEPP

Bottles from Alfred Nobel's laboratories analysed

Forty-three old ceramic bottles that were used in Alfred Nobel's laboratories have now been analysed.

There is a project of some cultural-historical value that has gone largely undetected until now. Together with Uppsala University and the Swedish National Heritage Board, the Nobel Prize Museum has been analysing the contents of forty-three old ceramic bottles that were used in Alfred Nobel's laboratories in San Remo, Paris, and at Björkborn Manor in Karlskoga. The contents of the bottles were typical of the day and in many cases exactly what it said on the label. The analysis turned up heavy metals such as lead and chromium and other substances one might expect to find in a laboratory. Some of the bottles also contained substances that were used in the manufacture of dynamite.

By analysing the liquids and powders and establishing a chemical registry of the contents, the museum in Karlskoga can determine the best way to store the bottles and how they can be safely handled and displayed for museum visitors in the future.

ABOUT ALFRED NOBEL

The inventor, entrepreneur and very successful businessman Alfred Nobel built up an enormous fortune that he chose in his will to dedicate to those who had contributed to the greatest benefit to humankind. The prize would reward outstanding efforts within the different fields that he was most involved in during his lifetime.

Alfred Nobel was born in Stockholm in 1833. His father, Immanuel, was an inventor and engineer. His mother, Andriette, was described as energetic and intelligent, and when Immanuel went to Russia after

a bankruptcy, she was forced to support the family. The Nobel brothers were given a first-class education by private tutors, and at the age of 17 Alfred spoke five languages: Swedish, Russian, English, French and German. Alfred ended up in Paris, where he studied chemistry under Professor T. J. Pelouze. It was there that Alfred first came into contact with nitroglycerine, which was invented by the Italian Ascanio Sobrero. Nitroglycerine was a highly explosive liquid considered too dangerous to be useful. Alfred Nobel returned to Sweden and soon began experimenting with nitroglycerine, both in its production and in making the substance reliable enough to use in industry. The work was dangerous and an accident killed several people, including his younger brother Emil. Alfred Nobel was finally able to solve the problem of the substance's volatility by mixing nitroglycerine with a type of sand, kiselguhr. The result was a mouldable mass that was easy to package and that could be shipped and handled safely. It was patented in 1867 under the name dynamite. With the patenting of different forms of dynamite together with detonators, which he had invented previously, Alfred Nobel achieved his major technical and industrial breakthroughs.

Alfred Nobel led the rapid exploitation of his inventions and built factories and laboratories around the world – Vinterviken in Sweden, Krümmel in Germany and Ardeer in Scotland were some of the first. He eventually built just over 90 factories in 20 countries. At his death, he had 355 patents and left behind an enormous fortune. Nobel was a man of his time, embodying many of the Enlightenment's central ideas, both in his practical work

and in his philosophy. He combined his religious doubt with a belief in the natural sciences and was a true optimist about technology and an entrepreneur who actively took part in industrialisation.

Alfred Nobel died on 10 December 1896 in his home in San Remo, Italy, and his will attracted significant attention when it was published. He had allocated most of his fortune to rewarding outstanding efforts within physics, chemistry, physiology or medicine, literature and peace. The will was challenged by relatives, authorities in several countries and by Swedish King Oscar II. Thus began a long process on the road to realising Alfred Nobel's vision. After a few years of complicated legal processes led by the executors of the will, Ragnar Sohlman and Rudolf Lilljequist, the Nobel Foundation was established in 1900 and the first Nobel Prizes were awarded the following year.





"Alfred Nobel is an important person in the history of science, and he's going to continue to be in the future, considering the Nobel Prizes. That's why it has been valuable to get clarity about exactly what he had in his bottles", says Sara Norrehed, Swedish National Heritage Board.

Sara Norrehed of the Swedish National Heritage Board, Professor Adolf Gogoll from the Department of Chemistry at Uppsala University's Biomedical Centre and Margrit Wettstein of the Nobel Prize Museum have worked on the project.

The Nobel Prize awarding institutions

In his will, Alfred Nobel stipulated which institutions should select Nobel Prize laureates in each prize category. Presumably, he chose the academic institutions that he considered to be best suited to the task. Nobel was less specific regarding the organisation that was to manage his assets. What would later become the Nobel Foundation was only mentioned in his will as a fund.

The Nobel Prize's internationally unique position is largely due to the century-long independence of the prize-awarding institutions in selecting Nobel Prize laureates. The fact that these institutions have engaged exceptionally knowledgeable individuals within their own organisations as well as extensive international expertise has played a vital role in achieving this standing.

The Royal Swedish Academy of Sciences selects the Nobel Prize laureates in physics and chemistry. It also selects the recipients of the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel, established in 1968 on the occasion of the Riksbank's (Sweden's central bank) 300th anniversary. The Academy has about 450 Swedish and about 175 foreign members. The Nobel Assembly at Karolinska Institutet selects the Nobel Prize laureates in physiology or medicine. The Assembly has 50 members. The Swedish Academy selects the Nobel Prize laureates in literature. The Academy has 18 members. All of these institutions appoint special Nobel Committees of three to five members, a secretary and, in some cases, also deputies.

Members are, in general, elected for a term of three years and may serve for a maximum of three consecutive terms. The Nobel Committees evaluate nomina-

tions for the respective Nobel Prizes and extensively examine a selection of the nominees. They subsequently present their proposals for Nobel Prize laureates to the prize-awarding institutions. The actual decision as to who will be awarded Nobel Prizes is made not by the respective Nobel Committees, but by all members of the prize-awarding institution.

For the Nobel Peace Prize, Alfred Nobel referred to the Storting (national parliament) in Norway in his will. The Storting appoints the five members of the Norwegian Nobel Committee. The Norwegian Nobel Committee differs from the other prize-awarding institutions in the sense that it is responsible both for evaluating the nominees and selecting the recipient.

In September of each year the respective Nobel Committees send out individual invitations to thousands of members of academies, university professors and other scientists in numerous countries, previous laureates, members of parliamentary assemblies and others. The invitation recipients are chosen so to ensure that as many countries and universities as possible are represented over time. A much broader group can make nominations for the Nobel Peace Prize without receiving an invitation from the Norwegian Nobel Committee compared to the other prizes. This nomination procedure for the Nobel Prize differs from many other prizes in that it is the responsible committee which appoints both the nominees and the recipients. Those who have been invited are able to nominate candidates for the coming year. Nominations, which are confidential, must be received by the committees no later than 31 January of the year in which the prize will be awarded. The procedures may vary somewhat between the Nobel Committees,

but the selection process is largely the same across all prize categories. The committees first confirm that the nominations were submitted by individuals who have the right to nominate. Since a nomination is only valid for the current year, it is common for some candidates to be nominated several times. Some candidates may also be nominated by more than one nominator in the same year. Nominations are recorded and compiled in a list. The list is processed in a series of phases during the spring. Initially, it consists of a large selection of names, which is then narrowed down to a smaller number of candidates. Remaining candidates are then evaluated in depth with the assistance of domestic and foreign experts. During the summer the Nobel Committee members produce a comprehensive report detailing the candidate or candidates proposed as the recipient(s) of the year's Nobel Prize. The proposal is presented to the members of the prize-awarding institution in September. The final selection of Nobel Prize laureates takes place by a vote. The decisions are announced by the respective prize-awarding institutions immediately after the vote, usually during the first half of October. All documents related to the nomination process and evaluations remain confidential for 50 years.

More information about the prize-awarding institutions is available on their respective websites:
www.kva.se
www.nobelprizemedicine.org
www.svenskaakademien.se
www.nobelpeaceprize.org

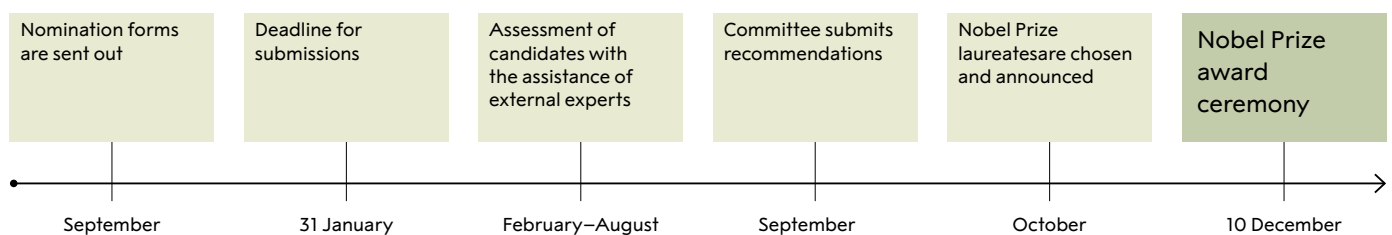


Gunilla Karlsson Hedestam presented the 2020 Nobel Prize in Physiology or Medicine in the Stockholm City Hall.
PHOTO: DAN LEPP



Berit Reiss-Andersen delivered a presentation speech at the Norwegian Nobel Institute before the Nobel Peace Prize was awarded to the World Food Programme in Rome.
PHOTO: KEN OPPRANN

Selecting Nobel Prize laureates



ANDREA
GHEZ

THE NOBEL PRIZE
IN PHYSICS
2020



The Nobel Foundation

The Nobel Foundation is a private foundation established in 1900 on the basis of the will of Alfred Nobel and the founding statutes promulgated in connection with the will. Its primary purpose is to ensure that the intentions of the will of Alfred Nobel are fulfilled. The foundation is responsible for managing Alfred Nobel's fortune in a manner that ensures a secure financial base for the Nobel Prize over the long term and that the prize-awarding institutions are guaranteed independence in their work of selecting recipients. The foundation is also tasked with strengthening the Nobel Prize's position by administering and developing the brands and intangible assets that have been built up during the Nobel Prize's history, which spans more than 100 years.

The Nobel Foundation has overall responsibility for the Nobel Week that takes place in Stockholm in December. This week includes an extensive programme for the Nobel Prize laureates, culminating in the Nobel Prize award ceremony and the Nobel Prize banquet held on 10 December. Both of these events are planned and run by the foundation. The Norwegian Nobel Institute was established in 1904 and acts as the Norwegian Nobel Committee's secretariat. The institute administers the activities connected with the awarding of the Nobel Peace Prize, including press conferences, the award ceremony and the banquet. However, in December 2020 the events in Stockholm and Oslo took place in digital formats.

The operations of the Nobel Foundation are essentially financed by the fortune that Alfred Nobel left behind. The market value of the foundation's total invested capital amounted to SEK 5,176 m at the end of 2020. Portfolio capital was allocated among 48 per cent equity funds and stock index futures, 5 per cent property funds, 15 per cent fixed income assets and cash, 28 per cent alternative assets and +4 per cent accrued currency hedging gains. The year's return on portfolio capital was +8.5 per cent. In addition to this, the Nobel Foundation owns a property in Stockholm and one in Oslo.

During 2020, the overall sum of all Nobel Prizes and operating expenses was SEK 96.6 m. This was divided among four main categories: the prizes, SEK 50 m; compensation to the committees,

SEK 22.2 m; the Nobel Week in Stockholm and Oslo, SEK 5.8 m; plus administration etc., SEK 18.6 m. In 2020 the Nobel Prize was raised from SEK 9 m to SEK 10 m per prize.

By late February and early March 2020, it was clear that the spread of COVID-19 would have major consequences for developments in our societies globally. Countries began taking steps to reduce the impact of the virus outbreak. This led to both sizeable economic policy interventions and powerful reactions in financial markets. These events adversely affected the market value of the Nobel Foundation's assets, but thanks to a moderate risk level when the crisis began, no actions were required to reduce the risk level in the portfolio. After bottoming out in late March, the stock market quickly recovered its entire decline and the Nobel Foundation's portfolio ended the year with a positive change in value.

Additional information about the Nobel Foundation's financial management is available in the foundation's 2020 Annual Report, which is available on the website nobelprize.org.

The Nobel Prize awarding institutions – the Royal Swedish Academy of Sciences, the Nobel Assembly at Karolinska Institutet, the Swedish Academy and the Norwegian Nobel Committee – appoint 15 trustees to the Nobel Foundation, for two calendar years at a time. Of these, six representatives are appointed by the Academy of Sciences and the other prize-awarding institutions appoint three each. The Academy of Sciences also appoints four deputies and the other institutions appoint two deputies each. The most important task of the trustees is to appoint the Nobel Foundation's board and to audit the foundation's activities and accounts.

The Nobel Foundation's board, which is based in Stockholm, consists of seven members and two deputy members. Board members and deputies are appointed for a term of two years each. From among its own members, the board chooses a Chairperson, a Vice-Chairperson and an Executive Director.

To engage, inspire and spread knowledge

The Nobel Prize rewards science, humanism and peace efforts. This is one of the central concepts in the will of Alfred Nobel, and it also permeates the broad outreach activities that have been developed for the purpose of engaging, inspiring and spreading knowledge to a broad general public based on the Nobel Prize as well as the discoveries and achievements of the laureates.

BOARDS OF DIRECTORS, 2020

THE NOBEL FOUNDATION

The Nobel Foundation is a private foundation established in 1900 on the basis of the will of Alfred Nobel and the founding statutes promulgated in connection with the will. Its primary purpose is to ensure that the intentions of the will of Alfred Nobel are fulfilled.

- Carl-Henrik Heldin, Professor, Chairman
- Göran K. Hansson, Professor, Vice Chairman, Secretary General of the Royal Swedish Academy of Sciences
- Lars Heikensten, Dr, Executive Director of the Nobel Foundation (retired at year-end 2020 and succeeded by Vidar Helgesen on this and all other boards starting 1 January 2021)
- Mats Malm, Professor, Permanent Secretary of the Swedish Academy
- Tomas Nicolin, MSc
- Thomas Perlmann, Professor, Secretary General of the Nobel Assembly at Karolinska Institutet and the Nobel Committee for Physiology or Medicine
- Berit Reiss-Andersen, Attorney, Chair of the Norwegian Nobel Committee

Deputy members

- Gunnar Ingelman, Professor, Secretary of the Nobel Committee for Physics
- Gunnar von Heijne, Professor, Secretary of the Nobel Committee for Chemistry

ALFRED NOBEL MEMORIAL FOUNDATION

The purpose of the Alfred Nobel Memorial Foundation is to promote education, culture, peace and scientific research, in part by financially or otherwise contributing to the activities and objectives of the Nobel Foundation.

- Carl-Henrik Heldin, Chairman
- Göran K. Hansson
- Lars Heikensten
- Mats Malm
- Tomas Nicolin
- Thomas Perlmann
- Berit Reiss-Andersen

NOBEL GROUP INTERESTS AB

The aim of the company is to own and actively manage shares and participations within the sphere of interest of the Nobel organisations. Another task of the company is to facilitate financial and administrative coordination between the companies in the Nobel sphere.

- Carl-Henrik Heldin, Chairman
- Göran K. Hansson
- Lars Heikensten
- Gunnar von Heijne
- Gunnar Ingelman
- Mats Malm
- Tomas Nicolin
- Thomas Perlmann
- Berit Reiss-Andersen

NOBEL PRIZE OUTREACH AB (NOBEL MEDIA AB)

During 2020 Nobel Media AB changed its name to Nobel Prize Outreach AB. The company spreads knowledge about Nobel Prize-awarded achievements and stimulates interest in science, literature and peace efforts through digital channels and inspiring events. The company is also responsible for the Nobel sphere's international activities and partnerships.

- Lars Heikensten, Dr, Executive Director of the Nobel Foundation, Chairman
- Peje Emilsson, Founder and Chairman of Kream
- Karin Pettersson, Culture Editor, Aftonbladet
- Mia Horn af Rantzien, Dr, CEO of the Center for Business and Policy Studies (SNS)
- Erika Lanner, Lawyer and CEO, Nobel Prize Museum
- Sara Mazur, Chair, Wallenberg Artificial Intelligence, Autonomous System, Software Program (WASP)
- Marie Nilsson, CEO of Mediavision
- Olav Njølstad, Professor, Director of the Norwegian Nobel Institute
- Juleen Zierath, Professor, member of the Nobel Assembly at Karolinska Institutet and associate member of the Nobel Committee for Physiology or Medicine

NOBELHUSET AB

Nobelhuset AB is the company that has been entrusted with planning, building, owning, administering and developing a future Nobel Center in Stockholm.

- Lars Heikensten, Dr, Executive Director of the Nobel Foundation, Chairman
- Olov Amelin, PhD, Director, Jamtli Foundation and Jämtland County Custodian of Antiquities
- Lars Anell, former Chairman of the Swedish Research Council
- Birgitta Ed, founding partner of Six Year Plan
- Gunnar von Heijne, Professor, Secretary of the Nobel Committee for Chemistry

- Fredrik Wirdeus, Senior Advisory Consultant, Fredrik Wirdeus AB
- Stefan Ränk, CEO, Einar Mattsson AB
- Monica von Schmalensee, Architect
- Erika Lanner, Lawyer and CEO, Nobel Prize Museum

NOBEL CENTER FOUNDATION

The Nobel Center Foundation (Stiftelsen Nobel Center) is responsible for the public activities carried out on the basis of the Nobel Prize Museum in Stockholm.

- Lars Heikensten, Dr, Executive Director of the Nobel Foundation, Chairman
- Mårten Castenfors, Museum Director, Liljevalchs konsthall
- Dilsa Demirbag-Sten, General Secretary, Berättarministeriet
- Bente Erichsen, film director, author
- Cecilia Gunne, Attorney, Lindskog Malmström Advokatbyrå KB
- Göran K. Hansson, Professor, Secretary General of the Royal Swedish Academy of Sciences
- Gunnar von Heijne, Professor, Secretary of the Nobel Committee for Chemistry
- Lisa Månsson, PhD, Director, Vasa Museum
- Åsa Wikforss, Professor, writer, Member of the Swedish Academy

NOBEL PEACE PRIZE – RESEARCH & INFORMATION AS

Nobel Peace Prize – Research & Information AS (Nobels Fredspris – Forskning og Informasjon AS), the research arm of the Norwegian Nobel Institute, was discontinued in September 2020.

- Olav Njølstad, Director of the Norwegian Nobel Institute, Chairman
- Bente Erichsen, film director, author
- Jon Ola Sand, Executive Supervisor, The European Broadcasting Union
- Henrik Syse, Professor, Peace Research Institute Oslo
- Lotta Wristel, Head of Administration of the Nobel Foundation

NOBEL PEACE CENTER FOUNDATION

The Nobel Peace Center in Oslo is a museum that showcases the Nobel Peace Prize laureates and their work, information about Alfred Nobel and exhibitions with a focus on documentary photography.

- Olav Njølstad, Director of the Norwegian Nobel Institute, Chairman
- Siri Hatlen, business owner, Deputy Chair
- Olav Aaraas, Director, Norwegian Museum of Cultural History
- Anne Enger, former Storting member, Minister of Culture and County Governor
- Jessica Barlindhaug Angstreich, Board member elected by the employees
- Lotta Wristel, Head of Administration of the Nobel Foundation

COMPANY INFORMATION

THE NOBEL FOUNDATION

- Executive Director: Dr Lars Heikensten (from 1 January 2021 Vidar Helgesen)
- Established: 1900
- Address: Sturegatan 14, Stockholm, Sweden
- Website: nobelprize.org

NOBEL PRIZE OUTREACH AB

- (Name changed during 2020 from Nobel Media AB to Nobel Prize Outreach AB)
- VD: Laura Sprechmann
 - Established: 2004
 - Address: Sturegatan 14, Stockholm, Sverige
 - Website: nobelprize.org

STIFTELSEN NOBEL CENTER

- (Nobel Prize Museum)
- CEO: Erika Lanner
 - The original Nobel Museum opened in 2001. Effective from 1 January 2019, the Nobel Center Foundation (Stiftelsen Nobel Center) acquired the operations carried out by Nobel Prize Museum, formerly Nobel-museet AB (the Nobel Museum), in Stockholm's Old Town.
 - Address: Stortorget 2, Stockholm, Sverige
 - Website: nobelprizemuseum.se

NOBEL PEACE CENTER FOUNDATION

(Stiftelsen Nobels Fredssenter)

- Executive Director: Kjersti Fløgstad
- Established: 2005
- Address: Brynjulf Bulls Plass 1, Rådhusplassen, Oslo, Norway
- Webbplats: nobelpeacecenter.org

NOBELS FREDSPRIS – FORSKNING OG INFORMASJON AS

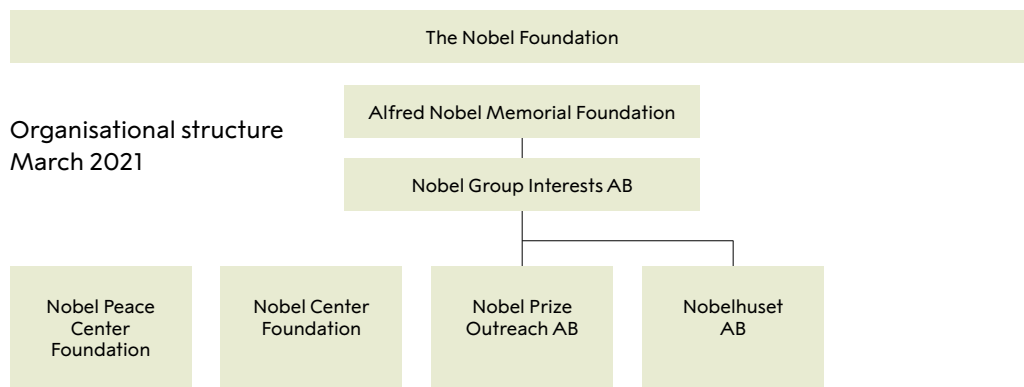
- (Nobels Fredspris – Forskning og Information AS)
- The company was discontinued during 2020



PHOTO: JOHANNES GRANSETH/NOBELS FREDSSENTER

Kjersti Fløgstad
Executive Director, Nobel Peace Center

“We believe that the Nobel Peace Prize laureates and their efforts have the power to change people's thoughts and actions. Those who interact with us will be inspired and get ideas for big and small changes. In 2020, we have met our audience in digital channels. The positive thing about this is that we reach people all over the world, not just those who come to Oslo, but we miss physical meetings and look forward to opening the doors to visitors again!”



Highlights in December

During the spring of 2020, the Nobel Prize awarding institutions decided they would select new Nobel Prize laureates despite the ongoing pandemic. Their decision to adapt to difficult circumstances was very positively received. The Nobel Week programmes in Stockholm and Oslo, which were made available digitally, reached a daily average audience of more than 900,000 on Facebook and 1.3 million on Twitter. As of mid-January 2021, recordings of the various programme points had been viewed online more than 750,000 times.

Many of the Nobel Week events were implemented in new formats, with the laureates participating remotely. Thanks to close collaboration with Swedish diplomatic missions abroad, all laureates were able to receive their medals and diplomas in their countries of residence. Economic sciences laureates Paul R. Milgrom and Robert B. Wilson after the ceremonial presentation in Palo Alto, California.

Pianist Igor Levit was the soloist at the 2020 Nobel Prize Concert. He performed Beethoven's Piano Concerto No. 5, together with the Royal Stockholm Philharmonic Orchestra under the baton of French conductor Stéphane Denève. The concert took place at Konserthuset Stockholm on 8 December and was broadcast live both on SVT Play, the Nobel Prize's YouTube channel and [nobelprize.org](https://www.nobelprize.org).

The ceremonial presentations were filmed and woven together with live speeches by members of the



PHOTO: ELENA ZHUKOVA



PHOTO: NIKLAS ELMERED




respective Nobel Prize committees and musical interludes in a Nobel Prize award ceremony that was recorded without an audience in the Golden Hall of Stockholm City Hall in collaboration with Swedish Television (SVT). Edda Magnason performed Edith Piaf's *Hymne à l'amour*.

The Nobel Peace Prize Forum, a recurring programme point during the Nobel Days in Oslo, focused on how the coronavirus pandemic is affecting conditions for international cooperation and global governance, and what the long-term consequences of this might be. David Beasley, Executive Director of the World Food Programme, participated by remote link.



The Nobel Prize Museum was closed during much of 2020 but was illuminated during December thanks to the *Ledsagare* light installation by Tobias Rylander and Sahara Widoff. The installation's name refers to the Nobel Prize banquet, where the guests of honour are guided in procession to their table. *Ledsagare* was part of the Nobel Week Lights festival.



"In a crisis you put
your differences
aside and you act."

Greta Thunberg, Swedish climate and environmental activist



A focus on the climate

To mark the 50th anniversary of Earth Day, a yearly event that highlights global environmental problems, Swedish climate and environmental activist Greta Thunberg participated in a live conversation that took place at the Nobel Prize Museum.

Also participating in this live conversation – which took place on 22 April of last year – was Johan Rockström, professor of earth system science. The discussion dealt with courage, solidarity and opportunities in times of crisis. The two also spoke about the need to manage two crises simultaneously: the ongoing COVID-19 pandemic and the climate change crisis. The conversation has been viewed nearly 89,000 times via the Nobel Prize's YouTube channel.

Johan Rockström also headlined the sixth edition of the Performance Lecture series, co-produced by the Nobel Prize Museum and Dramaten, the side programming unit of Stockholm's Royal Dramatic Theatre (Dramaten). His dramatised lecture, *About our Time on Earth*,

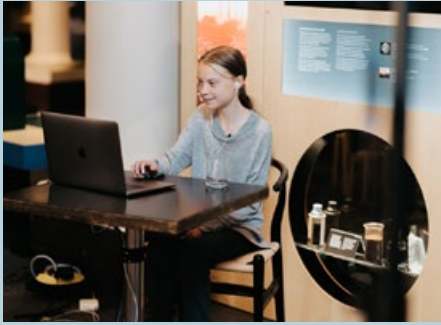
asks questions about how our children's and our grandchildren's planet will look. What can we do today to avoid the worst climate-related disasters? Is there a light at the end of the tunnel, leading to a sustainable and attractive world? The lecture was recorded by Swedish Television and has been broadcast there. It is available via SVT Play.

In April 2021 the first Nobel Prize Summit will be held on the theme of *Our Planet, Our Future*. The all-digital meeting will be based in Washington, D.C. The programme is being organised in collaboration with the US National Academy of Sciences, the Potsdam Institute for Climate Impact Research and the Stockholm Resilience Centre/Beijer Institute.



About Our Time on Earth with Johan Rockström and Sanna Sundqvist was directed by Ada Berger.

PHOTO: SÖREN VILKS



Greta Thunberg during the digital conversation with Johan Rockström on Earth Day. The Nobel Prize Museum was closed during much of the year and therefore several events were produced digitally, succesfully reaching a large audience.

PHOTO: CLÉMENT MORIN

Editors: Annika Pontikis,
Director of Communications
and Jonna Petterson,
Public Relations Officer

The text about Nobel Peace
Center by Ingvill Bryn Rambøl.

Design and production:
Catrine Jurgander
Printing: Danagård LITHO AB,
Ödeshög 2021
Paper: Scandia 2000 white

All images in the Annual Review
are © The Nobel Foundation,
© Nobel Prize Outreach or © Nobel
Prize Museum unless otherwise
indicated.

Cover: The installation *Space*, on
the Stockholm City Hall was part of
Nobel Week Lights and created by
Lumination of Sweden, PXLFLD and
creative technology in cooperation
with Rymdstyrelsen (the Swedish
Space Agency) and the European
Space Agency.
Photo: Per Kristiansen

For questions regarding the
Annual Review, please contact:
media@nobelprize.org

© The Nobel Foundation 2021.
The Nobel Prize and the Nobel Prize
Medal are registered trademarks
of the Nobel Foundation.

The Nobel Foundation
P.O. Box 5232
SE-102 45 Stockholm
Sweden



