

Visitor's Guide



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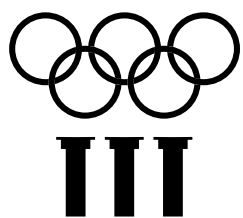
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THE
OLYMPIC
MUSEUM



THE OLYMPIC GAMES:
BEHIND THE SCREEN

19.02.2015 –
26.01.2016

The Olympic Games: behind the screen

This "Visitor's Guide" is one of a series of documents aimed at teachers to help them prepare for a visit to The Olympic Museum with their class.

It is accompanied by activity sheets to prepare for or follow up on the visit, or to work on the theme in class separate from a visit to the exhibition.

The exhibition can be visited with the Museum's "coaches". These guides accompany the students throughout their visit, taking into account the age and expectations of the group.

Tablets with suggestions for a route and activities are available to the teachers who wish to visit The Museum without a coach.

For more information: www.olympic.org/education

The Olympic Games: behind the screen 19.02.2015 – 26.01.2016

Free visit

Route presented by the teacher with or without tablets with suggestions for a route and activities to be followed in the exhibitions (free, upon reservation and subject to availability).

Reduced rate for students:

6-16 years old CHF 7.- per student/child.

One accompanying adult (free entry) per group of 10 students/children is obligatory.

Visit with a coach

With or without a workshop, from 10 a.m. to 4 p.m. (latest start):

- Monday to Friday, May to October

- Tuesday to Friday, November to April

Min. 15, max. 18 students/children per group, aged 9 and up

Duration: 90 minutes

Available in French, German and English

CHF 15.- per student/child, including entrance ticket. One accompanying adult (free entry) per group of 10 students/children is obligatory.

Information and reservation:

edu.museum@olympic.org; +41 21 621 66 85

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It can be downloaded from www.olympic.org/education

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How to use this file

This Visitor's Guide offers three learning tools for optimal preparation for visiting the exhibition.

Educational intentions

The main educational intentions are indicated on page 4.

School programme

The exhibition visit was created taking into consideration the objectives of the Programme Educatif Romand (PER) [French-speaking Switzerland's education programme]. One or more coloured text bubbles highlight the discipline addressed.



Activities and events

Each subject addressed offers the teacher suggestions for activities to develop the theme further, either during the exhibition or in class, with questions, discussions or activity ideas, depending on the age of the students.



The visit, step by step

The Olympic Games: behind the screen

Television is part of our daily life. These days, there is nothing as normal as watching the Olympic Games on television. However, we pay only scant attention to the wonderful technical quality of the images on offer, which help to convey emotions as strong as if we were in the stadium. These emotions are transformed into memories. The most significant ones (often the very first ones) accompany us throughout our lives.

The Olympic Games: behind the screen exhibition shows what it is like behind the scenes of broadcasting the Olympic Games, and allows visitors to discover the complexity and the exciting challenges that lie behind the images of sporting feats broadcast on television.

The first part of the exhibition is historical. It pays tribute to the pioneers and technologies of radio and television broadcasting of the Games. With images, the way of seeing the Games was gradually influenced by the position of the cameras (the number of which kept increasing) and by the technological developments which, through editions of the Games, improved and added to the experience of the spectator sitting comfortably at home.

The second part leads the visitor behind the scenes of Games broadcasting. Transported to London on 29 July 2012, between 3 and 4 p.m., the visitor experiences an hour of Olympic Games broadcasting. He discovers the many stages of the images' journey and meets the key players in this highly technical process.

The third and final part looks to the future of broadcasting and gives the visitor a foretaste of new ways of experiencing the Games live.

Educational intentions

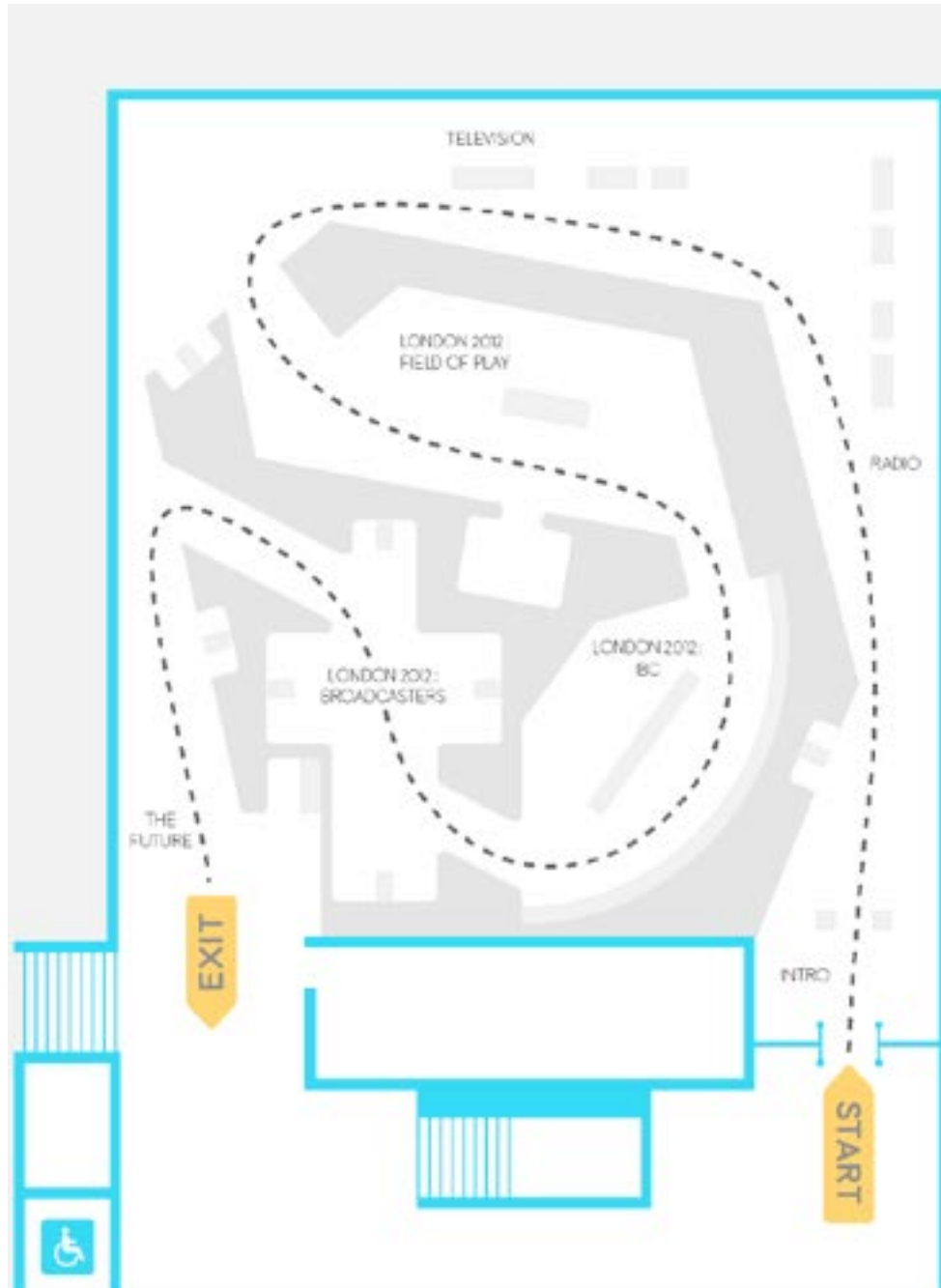
- Allow the students (who are also television viewers) to understand the complexity of broadcasting a sports event.
- Present the evolution of Olympic Games broadcasting technologies.
- Present the key players in this evolution.
- Show the careers linked to Olympic Games television broadcasting.
- Highlight the cultural aspect of Olympic Games broadcasting.

Links with the school programme



How the visit works

+1



Subjects of interest for students

- The issues and challenges linked to Olympic Games broadcasting.
- The evolution of broadcast technologies (radio and television).
- Behind the scenes: the journey of images and sounds.
- The role of broadcasters (TV channels) and the “cultural” aspect of broadcasting.
- The future of broadcasting.



Introduction



Broadcasting the Games – an Olympic challenge

The Olympic Games have become a global phenomenon thanks to audio-visual technology.

The objective of **broadcasting the Games as widely as possible** is stated in the Olympic Charter (Rule 48): "The IOC takes all necessary steps in order to ensure the fullest coverage by the different media and the widest possible audience in the world for the Olympic Games."

The challenges linked to broadcasting the Olympic Games, the most watched sports event on the planet, are huge. Since their beginnings, the technologies for broadcasting the Games on radio, then on television, have developed continuously to do justice to the Olympic event.

IN THE EXHIBITION:

- A quiz to test your knowledge on the subject of Olympic Games broadcasting;
- A terminal presenting several athletes' first memories of Olympic broadcasting.



Montreal 1976, Artistic gymnastics - Nadia Comaneci (Romania) on the balance beam.

FOCUS: My first Olympic memory

"I was watching the 1972 Games in Munich when another Gymnast from the Soviet Union won the gold medal. I told myself: 'Maybe one day I'll be there and I'll be like her.'" Nadia Comaneci, Romania, Olympic champion in Gymnastics in 1976.

"In 1994 – I had just started my sport – I was sitting on the couch with my mother and sister, and we saw Canada's Jean-Luc Bassard winning Olympic gold. It was then that I said to myself: 'Wow, if he can do it, so can I!'" Jennifer Heil, Canada, Olympic moguls champion in 2006.

A film shown on a loop featuring extracts of interviews of Olympic athletes of different ages and nationalities. They all tell us about their first memories of Olympic Games broadcasting and the impact that this had on their choice of career, or at least on their motivation to carry on so that, one day, they could be at the Olympic Games themselves.

This installation underlines the strength of Games broadcasting, the emotions it produces among the public, the dreams it feeds, etc.

A terminal with a camera located at the end of the exhibition allows visitors to share their very first Olympic memory as well.



What is your very first memory of the Olympic Games (on television)?



Which Olympic performances or athletes are part of the "collective memory" of your country, and why?

2/1

Evolution of Games broadcasting on radio



Radio: Sport for the ears

Before radio broadcasting existed, only the spectators on site could benefit from the spectacle of the Olympic Games. The others had to make do with following them in the written press, or via the few images shown weeks later at the cinema, in the cinema newsreels.

Radio was the sign of a new era, and opened the door to increasingly broad dissemination of the Olympic Games.

IN THE EXHIBITION:

- Objects from the past, showing the history of radio broadcasting;
- The wall with 16 extracts, in several languages, of radio commentaries from between 1936 and 2014;
- Two terminals to listen to some pioneers of radio sports commentary, who were real stars of the era.



Berlin 1936 – journalists commenting the regatta from a boat.

FOCUS: History of radio broadcasting of the Olympic Games

Radio broadcasting made its first appearance at the 1924 Games in Paris. There were local, pre-recorded broadcasts only. The beginnings were cautious, as the organisers feared competition with entry ticket sales.

Radio coverage became widespread from 1936 onwards. The Summer Games in Berlin benefited from commentary in 28 languages, for a total of 2,500 radio broadcasts. It was thus through the voices of the commentators that the Olympic Games began to form a part of people's daily lives.

From 1948 to 1960, radio was omnipresent at the Olympic Games, and covered the whole world.

From 1960 onwards, television became increasingly present in broadcasting the Games. But radio survived well and continues to do so.



9-12

Have you ever followed a sports competition on the radio? Share your experience.



12+

Why do you think that, despite the arrival of television, radio broadcasting of the Olympic Games has survived to the present day?

2/2

Evolution of Games broadcasting on radio



The French commentator Edmon Dehorter, known as "The unknown speaker".



The Italian commentator Sandro Ciotti.

FOCUS: Famous voices – Edmond Dehorter

Nicknamed "The unknown speaker", Edmond Dehorter was the first radio sports journalist in France. He made the first partially live commentaries for the 1924 Games in Paris.

Fearing unfair competition due to the rapidity of radio broadcasting compared to other media, the organisers forbade him from attending the football final between Uruguay and Switzerland. Dehorter was not discouraged, and decided to get in an airship flying over the stadium. But the wind carried him too far, above the stands and out of the field of vision, so Dehorter was forced to abandon his reporting.

However, the determination and stubbornness which characterised Dehorter's personality paid off: the journalist managed to convince the written press that it could not resist technical progress and needed to cooperate with radio.

His voice can be heard in the terminal devoted to the pioneers of radio.

FOCUS: Famous voices – Sandro Ciotti

A sports enthusiast, particularly with respect to football, Italian Sandro Ciotti made his first live commentary on the radio at the 1960 Games in Rome, for the football match between Denmark and Argentina. But it was in 1968 that he became part of Italians' collective memory: after a radio broadcast of the Mexico City Games that lasted more than 14 hours, his voice changed and became hoarse. From then on, it became his trademark – a single word was enough for him to be immediately recognised by listeners.

He had a very long career as a commentator: 14 editions of the Olympic Games, 15 Giri d'Italia and 9 Tours de France, as well as 2,400 football matches

His voice can be heard in the terminal devoted to the pioneers of radio.



What are the main differences between Mr Dehorter's way of working and that of a radio commentator today?



Why do you think that Olympic organisers in the past were afraid of radio's competition?



What are the differences between radio and TV commentators? What type of information must be provided to the public in both cases?



Name or look up famous sports commentators (radio or TV) from your country.

3/1

Evolution of Games broadcasting on television



Television: Sport in front of your eyes

Television is, without a doubt, the medium that has had the most impact on broadcasting the Games. Since the end of the 1940s, the relationship between audio-visual media and the Olympic Games has been constantly evolving, with one feeding the other and vice versa. Television broadcasting of the Games is developing all the time. The experience of the spectator at home is becoming a key factor in preparing for the Games. The commercial stakes are extremely high.

IN THE EXHIBITION:

Screens and terminals devoted to various aspects of the evolution of the TV coverage of the Games, i.e.:

- Statistics showing the evolution of broadcasting;
- The key stages in Games broadcasting;
- Presentation of three great figures who left their mark on Olympic Games broadcasting;
- The evolution of sound reproduction;
- The evolution of camerawork.



Sochi 2014, Adler Arena skating center - Cameras positioned along the track.

FOCUS: Watching the Olympic Games yesterday and today

Everything has changed since the first experiences of Olympic Games television broadcasting at the 1936 Games in Berlin.

Spectator experience: Before television sets became widespread, Olympic feats could be followed only through the newsreels shown in cinemas. The arrival of TV sets allowed the spectators' experience to be "privatised", so viewers could then follow the events sitting comfortably in their front rooms.

Number and positioning of cameras: From three cameras used in Berlin in 1936 to the hundreds of ultra-sophisticated cameras which capture the movements of the athletes today... these days, we follow the events better at home than in the stands!

Image and sound quality: In less than a hundred years, we have gone from just 180 lines (in 1936) to high definition (in 2008) and even 3D (in 2012). The same goes for sound – its capture, handling and transmission are constantly being improved. Technological progress has been great, and there is now a broadcast quality that was unimaginable a few years ago.



Discuss technological progress such as the zoom, slow-motion, etc.



Discuss the importance of sound in the TV viewer's experience.

3/2

Evolution of Games broadcasting on television



The Innsbruck 1964 Games were the first to be broadcast on the other side of the Atlantic.



Berlin 1936, Shooting of «Olympia», Leni Riefenstahl (behind the camera).

FOCUS: The key stages in Olympic Games television broadcasting

Berlin 1936 – London 1948: The move was made from public screenings in cinemas to private viewing at home (80,000 homes in Britain had a television set in 1948).

Cortina d'Ampezzo 1956 – Innsbruck 1964: The camera images were recorded on large magnetic bands. Broadcasting crossed the Atlantic in 1964.

Tokyo 1964 – Montreal 1976: Live broadcasting made its entrance in 1964; colour replaced black and white from 1968 onwards; and the Games were broadcast in full starting in 1976.

Los Angeles 1984 – Atlanta 1996: In 1984, film was replaced by video. From 1988 onwards, it was the turn of cameras to be improved. The new Super-Slow Motion cameras providing better quality were introduced at the 1996 Olympic Games.

Salt Lake City 2002 – London 2012: From 2002 onwards, the Games were broadcast live in full; 2004 saw the first Internet streaming; and, starting in 2008, the Games were broadcast in high definition. In 2012, digital coverage (Internet, mobile phones and digital platforms) overtook televised coverage.

More details, as well as anecdotes, figures and images, are available on the digital wall.



9-12

Choose and present a technological evolution linked to TV broadcasting of the Olympic Games.



12+

What do you think is the technological evolution/stage (linked to broadcasting) that has allowed the Olympic Games to become absolutely global?

FOCUS: Three key players

It is not possible to speak of the evolution of Olympic Games broadcasting without mentioning the three following people:

Leni Riefenstahl: Born in 1902, this German filmmaker was chosen to make a documentary on the 1936 Berlin Games by the regime in power. Considered a precursor of broadcasting, the film *Olympia*, which was released in 1938, revolutionised the art of filming sport: unusual shots, lens framing, close-ups, etc.

Roone Arledge: Responsible for coverage of the Olympic Games in the United States from 1964 to 1968, this American did everything he could to allow the TV viewers to feel "as if they were in the stadium": athlete portraits, instant slow-motion, new cameras, explanatory graphics, microphones close to the action – all means that allowed the emotions and tensions that are part of sport to be magnified.

Manolo Romero: This Spaniard has worked for Olympic broadcasting since 1968. The Director of Olympic Broadcasting Services (OBS) from its creation at the start of the noughties until 2012, he has always sought excellence from his staff and used technological progress to produce the best possible televisual experience.

Photos and video clips provide further information.



9-12

Why do you think we chose to present these three people?



12+

Do you agree with the idea that behind technological progress, there are always key personalities? Why?

4/1

The images' journey from the field of play to your front room – the example of London 2012



An hour of the Olympic Games - live

We are now at the Olympic Games in London, on 29 July 2012 (the second day of the Games), between 3 and 4 p.m.: 33 competitions in 20 different sports are taking place at 18 different venues. The great "image production machine" is in full swing. The second part of the exhibition takes visitors behind the scenes of broadcasting. It shows the state-of-the-art equipment, the installations and the key players of this process, whose results may seem to be "magic" but which are, in reality, the fruit of many years of preparation and careful hard work.

IN THE EXHIBITION:

- An area devoted to the field of play, with cameras, microphones, an animated film about the broadcast van;
- An area devoted to the International Broadcast Centre (IBC) with an explanatory film and a long wall of screens showing the 33 competitions underway;
- An area devoted to the broadcasters, which includes an interactive feature allowing visitors to compare four versions of commentary on the same competition and one showing the different broadcast choices made on 29 July 2012.



London 2012, the International Broadcast Centre (IBC).

FOCUS: The images' journey

In London, some **1,000 cameras and 4,000 microphones** (up to several dozen per competition) were used to cover all the events and allow all the competitions to be broadcast in full. Leading these operations to "capture" the Olympic Games was Olympic Broadcasting Services (OBS), a body created by the IOC in 2000.

All these images and sounds were transmitted to the **broadcast vans**, where they were handled and put together in real time by the production teams, then sent to the **International Broadcast Centre (IBC)**, the nerve centre of Games broadcasting. A veritable hive of activity hosting up to 17,000 people, this enormous building, which was open 24/7, contained the equipment, offices and staff of OBS and the broadcasters.

The "universal signal" transmitted by OBS was then made available to broadcasters throughout the world, who adapted it to the tastes and interests of their respective audiences.

Two animated films show, in a simple and didactic way, the work undertaken in the broadcast vans and how the IBC operates.



Why do we use several cameras to film the same competition today?



Which sports/events would you choose to broadcast in your country (Summer/Winter Games), and why?

4/2

The images' journey from the field of play to your front room – the example of London 2012



London 2012, Archery - View of the Lord's Cricket Ground. A cameraman on the field of play.



London 2012, TV crew in action.

FOCUS: The job of operator and assistant operator

During the Games, thousands of people work for OBS and perform different jobs. Among them are the camera operator and assistant operator.

The **camera operator** works behind the camera. This can be placed on his shoulder or foot, on rails or on a crane. He films the actions or details communicated to him by the producer in his headset from the production room.

Behind him is the **camera assistant**. When the operator tells him they are filming, he ensures that he is not disturbed by any "intruders" (objects or people), which is very important in allowing the operator to concentrate on shooting and not worry about tripping over or bumping into something.

These people also install, maintain and tidy away the equipment before and after the competitions.

FOCUS: Broadcasters' work

The Olympic Games are broadcast throughout the world (the London Olympic Games benefited from 100,000 hours of broadcasting, transmitted by 500 TV channels). But the competitions broadcast are not the same everywhere. This is understandable as each country has its preferences – popular sports, national champions, etc. It is thus natural that, from among all the competitions on the menu at the Games, each broadcaster takes their own pick. Except for the men's 100m final and some other key events, the competitions broadcast in different countries vary considerably.

The commentaries (and commentators) are also very different, depending on the country. They explain the event in voice off, thus allowing the spectators to follow the competition even better. Broadcasters often call upon consultants as well, who accompany the commentator. These consultants are often active or retired athletes, or in any case people who know the sport in question very well, and who thus bring a tactical and technical vision of the game and of the images.



9-12

Would you like to be a camera operator at the Olympic Games when you are older? Why/Why not?



12+

Research and present other jobs linked to broadcasting the Olympic Games.



9-12

Why is television in your country unlikely to broadcast exactly the same competitions as those broadcast on television in a neighbouring country?



12+

Choose two different countries and list the sports (or events) that you would choose to broadcast (Summer/Winter Games).

5/1

The future of Olympic Games broadcasting



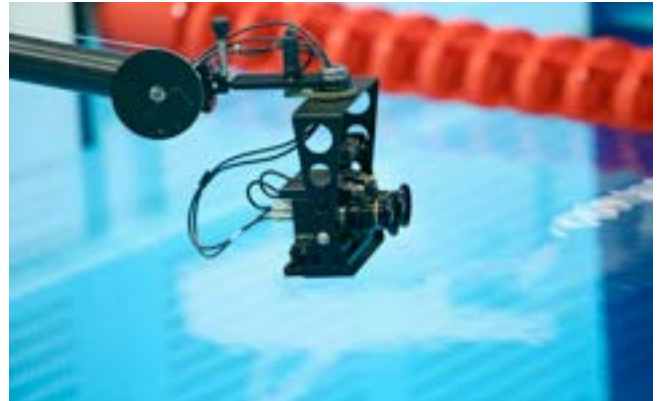
And what will we see tomorrow?

The London 2012 Games had the most widespread coverage ever – a world audience of 3.7 billion spectators in 220 countries and territories. This record was achieved mostly thanks to the multiplication of means of broadcasting: radio and television, as well as the internet and all the new possibilities this now offers.

What do the new Games broadcasting technologies have in store for us? How will we watch the Games tomorrow? The final part of the exhibition gives a foretaste of new ways of experiencing the Olympic Games live.

IN THE EXHIBITION:

- A tablet with the new OVP application (tested in Sochi in 2014);
- Two technologies currently being developed by the EPFL, which promise to revolutionise the spectator's experience once again, are available.



London 2012 OG, Swimming - A 3D camera.

FOCUS: High Definition – better than the real thing

For live broadcasting of sporting events, four innovations stand out in particular:

- **3D** enables you to see in three dimensions, with or without glasses. For the London Games, 230 hours of live 3D were produced.
- **HD (High Definition)**: with 4K and even 8K, we now have four times and 16 times more pixels and precision. However, according to studies, the impact on the TV viewer is not as striking as you might think...
- With **HFR (High Frame Rate)**, more images per second are captured and displayed. This allows the TV viewers to have a better experience of sports competitions.
- **HDR (High Dynamic Range)** increases the dynamic range of the images. Areas of shade on the field and backlighting are thus eliminated.

Tomorrow's broadcasting will probably be born from a wise mix of all these technologies. Or perhaps from something new that is still unknown today.



What is High Definition?



Why do you think that HFR has more impact on TV viewers than 16k?