JMC-14
BLOCK-1

ଓଡ଼ିଶା ରାଜ୍ୟ ମୁକ୍ତ ବିଶ୍ୱବିଦ୍ୟାଳୟ,
ସମ୍ବଲପୁର, ଓଡ଼ିଶା

Odisha State Open University
Sambalpur, Odisha

JOURNALISM AND MASS COMMUNICATION (JMC)

FILM STUDIES

History & Development of Cinema

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Odisha State Open University, Sambalpur, Odisha
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Journalism and Mass Communication (JMC)

JMC-14

Block-01

History & Development of Cinema

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UNIT-1 HISTORY OF ARTISTIC REPRESENTATION

1.1: Learning Objectives

After going through this unit the learners would be able to:

- Learn historical, theoretical and critical understanding of art, including painting, sculpture and architecture.
- Encourage, where possible, to research and investigate art through first-hand experience of works of art.
- Understand the relationship between society, culture, technology, politics and art.
- Understand the ways in which art has been used and interpreted by past and present societies.
- Describe the influences on, and contributions of, artists, and know key art historical terms, concepts and issues.
- Understand how visual language is used by artists to communicate ideas, including formal characteristics, materials, techniques, processes

1.2: Introduction

Sometime between 40,000 and 30,000 years ago, Europeans first began making ornaments, such as beads, pendants, and perforated animal teeth, to adorn their persons. At about the same time, the Cro-Magnons started painting images of animals, signs, and anthropomorphic figures on cave walls. To briefly understand the trajectory of this beginning of art and its prolific expression; let us go through the process step by step.

- The Europeans were not alone; wall art appears almost as early in Australia and southern Africa. Art was a worldwide phenomenon by 25,000 years ago, at the height of the late Ice Age.
- But the early discovery of prehistoric art forms, are quite interesting to know about and to engage with.
- In 1875, Spanish nobleman Marcellino de Sautola decided to dig for Stone Age artifacts in a cave on his estate at Altamira in northern Spain. His young daughter Maria discovered polychrome images of long- extinct bison on a side chamber.
- The experts scoffed at Sautola and accused him of forging the bison paintings, which he claimed to be the work of Stone Age artists.
- It was not until 1904 that the long-dead Sautola was vindicated, when some paintings very similar to those from Altamira came from a sealed cave named La Mouthe near Les Eyzies in southwestern France.
- Since then, Cro-Magnon art has been recognized as among the earliest art traditions in the world.
- The sudden appearance of art is probably connected to the development of human cognitive fluidity.
- However, this was not art for art's sake, but art that had a vital symbolic meaning, with, as it were, a code behind it.
- Cro-Magnon art was a bridge between the living and spiritual world, but vigorous controversy surrounds its interpretation.
- Cro-Magnon art comes in two broad forms—as mobile art in the shape of decorated artifacts, many of them obviously of ceremonial use, and as cave art—engravings and paintings.

With this background, let us also consider that,

The Cro-Magnons were also brilliant artists in various other mediums – like, stone, antler, bone, clay, ivory, and probably wood, most of which has not survived. But we do have evidence of some 10,000 sculpted and engraved objects come from late Ice Age sites all over Europe and deep into Eurasia and Siberia. The prehistoric people decorated their harpoons, spear points, spear throwers, and other artifacts with fine naturalistic engravings of wild animals and elaborate schematic patterns, where even the fine eye details and hair texture are shown. But, the Cro-Magnons are most famous for their rock art—paintings and engravings deep in the caves of southern France and Spain.

At Altamira, in northern Spain, the artists made use of natural protuberances in the rock to shape polychrome bison, in multitude of low chambered caves in the hillside. Altamira was probably painted about 13,000 years ago, while Lascaux in southwestern France, a masterpiece of giant bulls, stag, and bison, was painted about 15,000 years ago. But, perhaps the most dramatic painted cave of all, the Grotte de Chauvet in southeastern France, was discovered only in 1994. Its chambers contain magnificent friezes of lionesses, rhinoceroses, and other animals dating to as early as 31,000 to 24,000 years ago. The earliest human artifacts showing evidence of workmanship with an artistic purpose are the subject of some debate. It is clear that such workmanship existed by 40,000 years ago in the Upper Paleolithic era, although it is quite possible that it began earlier. In September 2018, scientists reported the discovery of the earliest known drawing by Homo sapiens, which is estimated to be 73,000 years old, much earlier than the 43,000 years old artifacts understood to be the earliest known modern human drawings found previously. (St. Fleur 2018)

1.3: Artists and Mammoth Hunters

Rock art presents one of the earliest forms of the human self-expression available. (Chakraverty 2009: 94) However, some of the underlying theories and legacies of thought 'that dictated our access to and understanding of these legacies have been stymied' by what Ross (2001: 543) called the 'complexities of American and European ideologies of conquest and colonialism' that approached rock art research as the record of creations of conquered people who in their past wandered aimlessly across unknown and unclaimed territory.

In the Upper Palaeolithic, within the Aurignacian culture, it is assumed that the earliest art form originated there. Though there is evidence that the idea of the 'aesthetic' may have emerged some 100,000-50,000 years, but there is constant debate over it – especially circling around the interpretations over several Middle Palaeolithic artifacts – which many archaeologists believe show evidence of artistic expression. They especially analyse it in this way, because of the extreme attention that has been paid to details pertaining to tool size and shape, the precision of points etc. – which makes researchers evaluate even stone tools, such as Acheulian hand-axes and laurel points as displaying high degree of artistic expression. Even evidences like, different kinds of geometric etchings made with a shark tooth Homo Erectus, has also been seen as evidence of earliest artistic expressions (back in 2014).

There are also other claims of Middle Paleolithic sculpture, dubbed the 'Venus of Tan-Tan' (before 300 kya) and the 'Venus of Berekhat Ram' (250 kya). Researchers have also suggested that early Homo Sapiens were quite capable of abstraction, hence producing abstract and even symbolic art. Examples like stones that were discovered in 2002, in Blombos cave (in South Africa) – where stones with grid or cross-hatch patterned engravings were discovered; or another cave in Turobong (in South Korea), where carved deer bones as well as depictions of deer were found along with human remains, dated to about approximately 40,000 years ago; or the petroglyphs of both deer and reindeer found at Sokchang-ri (dated to Upper Paleolithic); and the stylized pottery (similar to the early Japanese work) that have been found at Kosan-ri on Jeju island, which because of its low sea levels would have been accessible from Japan – have often been seen as evidence for the same. But there are several renowned archaeologists like Richard Klein, who are quite hesitant to accept these forms of artifacts as examples of actual art.

On the other hand, oldest petroglyphs, dated to Mesolithic and late Upper Paleolithic (approximately 10,000-12,000 years ago), are seen as undisputed evidence of artistic expressions. One of the earliest among them is seen to the African rock art, which is estimated to be about 10,000 years old – among which are the naturalistic paintings of humans, going back to at least 8,000 years ago, from the Nile valley, which is then seen to have spread as far west as Mali. Among these, Tassili n'Ajjer (southern Algeria), Tadrart Acacus (Libya) (A Unesco World Heritage site), rock carvings at the Wonderwerk Cave (South Africa) and the Tibesti Mountains (northern Chad) are seen as some of the most notable sites. But at the same time, there are sites in Tanzania, or at the Apollo 11 Cave complex in Namibia, which have been dated to 29,000 and 27,000 years (approximately) respectively, which are seen to be contentious. At Göbekli Tepe (Turkey), circles of humungous T-shaped stone pillars, which date back to the 10^{th} millennium BP, and are seen as the world's oldest megaliths. Many of these pillars also are covered with abstract, sometimes quite enigmatic pictograms and carvings – which again pushes us to re-evaluate the stand we take on the idea of oldest artistic expressions found in the oldest cultures of the world.

Significantly, rock art studies however, remains stagnated at the primary level of research with the main stress still being on recording and reporting of rock art sites. Theoretical and methodological approaches have proven to be much more intractable.

This unit will also present and discuss the distribution of rock art in an area, in order to emphasize differing contexts of rock art production, and highlight recent debates on its chronology and interpretation. Through this, the importance for examining rock art in its archaeological context is illustrated and implications for interpreting similar rock art in other parts of the country are presented.

The discussion on the antecedents of rock art studies with special reference to India is taken off in the backdrop of the various claims to the discoveries of rock art. Further, the various methodological and theoretical issues as well as the continuing difficulties of getting hard dates for these arts on rocks is also taken up for review. Furthermore, the discussion on rock art is attempted by adopting a landscape approach. The emphasis has all throughout been on a better understanding of the rock art phenomena and the various graphical representations not merely as another ethnographic leitmotif. This unit also problematizes the notions of rock art creation as a sacral or functional enterprise and argues for a reappraisal of the theoretical and methodological underpinnings of rock art studies. So that we can begin to understand rock art as art in the context of not only its presumed cultural settings but also a locational-being suffused with meaning – which are motifs-in-place abstracted from their materiality through transformation into art and can thus claim existence and identity apart and independent of its own.

1.4: Debates over the meaning of Art

Early theories thought of this art as either art for art's sake or as "sympathetic hunting magic," but clearly, the art has a more intense symbolic meaning. Most authorities now believe that the art was painted by shamans, much of it as a result of solitary vision quests deep in dark caves. They painted signs, even animals, as a result of their quests, when memories were fresh. Shamans—the word comes from a Siberian word saman, were spirit mediums, people with unusual spiritual powers who could pass freely in trance from the living to the spiritual world. They were intermediaries between living people and the forces of nature and animal spirits.

But the modern theories of Cro-Magnon art draw more on the modern-day research into hunter-gatherer art in southern Africa. They argue that the art was created by shamans in dark places, both as a vehicle for their own experiences and as part of ceremonies in which people drew spiritual power from the animals they hunted.

The spiritual relationship between the Cro-Magnons and the animals they hunted may have been very close and commemorated in initiation ceremonies and rituals conducted in dark caverns.

At the same time, we should always be careful when we read on any theoretical viewpoint, as they only demonstrate what it could be, rather than what it must have been, way back in the past and the meaning behind it. Because, we will never be able to fully discern the spiritual dimensions of Cro-Magnon life, but it seems likely that shamans flourished at this early time, as they did in many later hunter-gatherer societies.

1.5: The Earliest Extent of Rock Art

Late Ice Age societies flourished far to the east of the comfortable enclaves of northern Spain, southwestern France, and Austria, on the rolling plains and steppes of Central and Eastern Europe and far into Eurasia. The development of needles and tailored clothing enabled people to live on the open plains through subzero winters, something that the Neanderthals may never have managed to achieve. Modern humans were already living in the river valleys of the Ukraine and the Czech Republic by at least 35,000 years ago and were well established there by 25,000 years ago.

The undulating plains of Central Europe and Eurasia were a far less hospitable environment for Stone Age hunter-gatherers. For warmth and shelter, they had to create artificial dwellings with their own tools and from locally available raw materials. A series of late Ice Age hunting and gathering societies, known to archaeologists as the East Gravettian complex (named after a rock shelter in France), flourished on the plains and varied terrain of Central and Eastern Europe between 28,000 and 10,000 years ago. The people of these societies are commonly thought to have been mammoth hunters, who preyed on the herds of arctic elephants on the plains. In fact, much of their diet came from smaller animals, such as rabbits. Mammoth bones were invaluable for roof beams for houses, many of them collected from animals that died of natural causes.

The Dolní Vestonice and Pavlov sites in the Czech Republic overlooked a river about 24,000 years ago. Here, people lived in oval bone-and-timber houses dug partially into the ground. The inhabitants hunted rabbits and other small animals; made basketry, the earliest known in the world; and baked clay figurines of animals and humans, also the earliest such

objects known. In the Don and Dneiper River valleys of the Ukraine, the most intensive Gravettian occupation was between 18,000 and 14,000 years ago. The Mezhirich site overlooked the Dneiper River 15,000 years ago. The site is a small settlement of five houses dug into the ground, covered with roof frameworks of mammoth bones in intricate interlocking patterns, covered with hide or sod.

To the east of the Don and Dneiper River valleys stretches central Asia, a vast area of steppe and varied topography that extended to Siberia's Lake Baikal and beyond. During the late Ice Age, a sparse population of big-game hunters inhabited river valleys and lake basins, where they came into contact with other hunter- gatherer groups from areas to the south. Central Asia was subject to cultural influences from both the late Ice Age cultures of the west and the still little-known contemporary societies of China and areas to the south.

1.6: The Age of 'Discoveries' in India

With claims to the first documented discovery of rock art in the winter of 1868-69 by Archibald Carllyle in a few shelters near Sohagi Ghat (present Mirzapur District, Uttar Pradesh) on the northern scarps of the Vindhyas, India is generally credited as the country with first reported find of rock art. This interestingly, is much before what is usually considered as the first instance of rock art discovery in Europe. (Neumayer 1983:1; Pandey 2001: 249; Sonawane 2012: 84; Tyagi 2001: 303; Wakankar 2001: 319) However, Carllyle's findings and discovery was never published but remained confined in his personal notes until it was published later by V.A. Smith in the year 1906 (Smith 1906:185-195). In this regard, Neumayer (1983:1) has very rightly observed by citing the instance of the prior existence and description of cave paintings of Rouffignac dating as far back as 1538, that, cave paintings were recognized or noticed by scholars not so much as discovered.

Further expanding on the above incisive observation, Neumayer (1983:1) further elaborates that the largely western-scholars and scholarship driven study of Indian prehistory stagnate(d) in the shadow of Indian classical archaeology with its mammoth temple complexes and entire cities buried beneath the growth of jungles, subscribing also to what he called the romanticism of nineteenth-century writers and readers.

It was in 1883, that the first systematic examination and publication of rock art in the country was undertaken by John Cockburn, who, in 1881 discovered what he identified as fossilized bones of rhinoceros in the valley of Ken River alongwith paintings depicting a rhinoceros hunt in a rock shelter near Roup village, Mirzapur District, Uttar Pradesh. (Cockburn 1883: 56-64)

He however wrongly identified the rhino hunt as that of a depiction of a boar hunt, which he later amended following his discovery of well-preserved depiction of rhinoceros hunts at Ghormangar and Harni-Harna. Moreover, on the basis of a reference to the Mughal emperor Babur having hunted boars around the area in the early sixteenth century, he erroneously ascribed these paintings to be as old as only about 300 years. In 1899, Cockburn followed up on this with a comparison of drawings made of his discoveries with the rock art from Australia, South Africa and South America. (Mathpal 2001: 207-208; Neumayer 1983: 2-3)

Other early instances of the interest on rock art studies in the Indian subcontinent is the report by F. Fawcett in 1901 regarding rock bruisings in the Edakal caves (Kozhikode District, Kerala). In 1916, Robert Bruce Foote, who is variously credited with being the one person really responsible for bringing the Indian prehistory into the limelight reported about similar discoveries in the district of Bellary in Karnataka. Closer to the study area under consideration, Manoranjan Ghosh discovered the paintings of Adamgarh in the year 1922, and undertook pioneering steps to make accurate artistic representations of the paintings at the site of Adamgarh (Hoshangabad District, Madhya Pradesh) as well as those at Mirzapur (Uttar Pradesh) and Raigarh (Chattisgarh). These were subsequently published in the form of a monograph in the year 1932. (Ghosh 1932) The 1930s was also marked by the significant contributions made by D. H. Gordon who undertook explorations and systematic analysis of the rock art of the Mahadeo Hills (Hoshangabad, Madhya Pradesh) and established the antiquity of the rock art in this region to be as old as the tenth Century BCE (Pandey 2001:249).

1.7: The Antecedents of Rock Art Studies in India: A Brief Account

By far the most prolific and authoritative figure on Indian rock art studies undoubtedly would be the work of V. S. Wakankar who in the course of his doctoral work undertook the task of cataloguing the rock art of Central India.

Tracing the antecedents of rock art studies and research in India, Mathpal (2001:213-214) identifies three distinct phases/periods in the development of the field. The first period (1867-1931) which he ascribes to be a period where most of the research was undertaken by amateur enthusiasts, by individuals who undertook the study of well-preserved, prominent-looking and isolated figures who mainly employed tracings, free-hand copying and short notes resulting in the publication of very few articles. At this stage of rock art studies, he asserts that there were still some doubts as to the antiquity of the Indian rock art. To this period, he lists out A. Carllyle, J. Cockburn, F. Fawcett, C. A. Silberrad, C. W. Anderson, P. Brown, R. B. Foote, P. Mitra, A. N. Dutta and M. Ghosh.

The second period (1932-1972), to him was a period of well-planned explorations which resulted in several hundreds of yet undiscovered paintings being reported. They undertook faithful copying and followed up with fairly detailed descriptions of the rock art. At this stage of its development, the doubts about the stone-age antiquity of rock art in India were increasingly being questioned. In this period of research are listed M. Ghosh, D. H. Gordon, V. S. Wakankar, B. Allchin, R. Allchin, J. Gupta, R. K. Varma, S. K. Pandey, J. Jacobson, A. Sundara, and S. Tiwari. It was in this stage of rock art research that the maximum number of sites was discovered.

The third and final period (1973-present) is characterized by the systematic excavations of rock shelters along with scientific reproduction of rock paintings. The method of research includes exhaustive regional studies, research publications, exhibitions, seminars and lectures on rock art. By this time, the extent antiquity of Indian rock art to the Mesolithic and later was established. In the explorers and recorders of this period of rock art research, he enumerates V. S. Wakankar, Y. Mathpal, H. D. Sankalia, V. N. Misra, E. Neumayer, L. Wanke, M. D. Khare, V. Singh, G. Kumar, R. Tiwari and G. S. Tyagi.

The aim of documentation of rock art has until recently been the documentation of the actual figures, where technique and motif has been the leading premises. Arguably, the overall standard of documentation has not changed much since the last 50 years. Documentation most often set out to achieve the most accurate reproduction of the figures. Recently features in the rock surface have been related to the rock art figures; hence, we need new documentation. Many researchers still apply old documentation when discussing rock art; hence, foremost consideration must be given to the research aims when documenting the rock art.

1.8. Paintings and Sculptures as Art

Art, or what can be defined as art, has become a very complex issue indeed. There have always been debates over the nature and purpose of art that were essentially unresolvable. After all, if someone says 'The Mona Lisa is art because it's beautiful,' and another person says, 'The Mona Lisa is not art, because it's not beautiful,' it is difficult to come to a conclusion which will be agreeable to everyone. Other debates raged over whether art should be 'dulce et utile' - that is, should have a didactic purpose - or should simply be a means of pleasing the senses and creating and celebrating beautiful objects: 'art pour l'art,' or 'art for art's sake.' Today, many people say that art does not have to be beautiful - in essence, saying that 'The Mona Lisa is not beautiful, but is art.' The natural response is 'How do you know?'

These kinds of debates render the topic still more difficult, especially when we are faced with various types of modern art. Is a blank canvas art? Is a porcelain toilet standing alone in a gallery art? Is a collection of crushed aluminum cans arranged in a wire wastebasket art? Or the crisscrossed lines in colours that individually stand out on a canvas art? Ultimately, we can only agree that those items, involving effort and arrangement as they do, are art, but that we are unable to define whether or not they are fine art, or high art. These enquiries are equally pertinent in the case of cinema which is considered as a culmination of all other forms of art - plastic (like sculpture and painting) or literature and music.

Art has undoubtedly been a means of stimulating imagination and creativity for centuries, and has been intended as such, whether it is religious, secular, painting, sculpture, decorative or representative. Perhaps the best way then to define art is as created work has some kind of effect, whether in the public's eye or the artist's own. One can say that it is designed to please and delight, or to inspire any kind of emotion/reaction. But at the same time, often it has a symbolic meaning buried within it. But there are so many exceptions that there truly is no hard and fast rule for art. The bottom line is that if you decided as a child to do your finger-painting on the wall of your bedroom, unless you had extremely open-minded parents, what you did was not art. But at the same time, if as an adult you create the same work and declare it to be art, then it is.

Whether anyone else will appreciate your art or not is immaterial. This essentially means that - if one can find meaning or give meaning to a created piece of work, then it can be defined as art.

One can find the paintings of Rembrandt, Raphael, Michelangelo, Leonardo Da Vinci as the masters of painting. Their work can be found in the chapels and as solo arts. Salvador Dali brought surrealism to world of art while Pablo Picasso and Vincent Van Gogh redefined the painting. In India Raja Ravi Varma is considered as the prominent person who redefined the myths and tales through his paintings.

When one talks about sculptures whole world is full of it. From Egypt's Great Sphinx to Terracota Army of China to Elephanta Caves of India, all tells the story of a world that once existed. One of the important examples of sculptures in India is the temple art, whether it is in Konark, Mahabalipuram, Ellora Caves and many more to add. When one talks about the world, one name who is respected as the genius of sculpting is Stanisław Szukalski from Poland. He was part of the Chicago Renaissance. Some of the prominent sculptures in the world are: Ecstasy of Saint Teresa (1652) by Gian Lorenzo Bernini, Pieta (1499) by Michelangelo, David (1440s) by Donatello, Christ the Redeemer (1931) by Paul Landowski, Manneken Pis (1619) by Hieronymus Duquesnoy the Elder, The Thinker (1904) by Auguste Rodin and Venus de Milo by Alexandros of Antioch.

1.9. Unit Summary

Learners so here we come to an end of this unit. In order to revise what we have learned we need to summarize the whole unit. We learned about the whole tradition of artistic representation. Starting from the cave paintings, the most significant being Altamira in Spain. We further talked about the whole debate around art, whether it has some significant meaning or is created only as the reflection of creativity. The discussion went further to the earliest extent of rock art available in the world. It referred to the Late Ice Age societies which flourished far to the east of the comfortable enclaves of northern Spain, southwestern France, and Austria, on the rolling plains and steppes of Central and Eastern Europe and far into Eurasia. Then we referred to the 'age of discoveries' in India. It talked about the discovery of different artistic representations found near the Vindhya region and later near Kozhikode district. Then we discussed the antecedent of rock art studies in India. V. S. Wakankar is

considered as the central figure of rock art studies in India. Further this whole antecedent of rock art studies and research in India has been put into three distinct phases. In the first period (1867-1931) most of the research was undertaken by amateur enthusiasts. In the second period (1932-1972), to him was a period of well-planned explorations which resulted in several hundreds of yet undiscovered paintings being reported. And the third and final period (1973-present) is characterized by the systematic excavations of rock shelters along with scientific reproduction of rock paintings. We concluded with the discussion on the painting and sculpture as an art. In doing so we described the work and art of some of the decorated painters and referred to the celebrated sculptures in the world.

1.10. Check Your Progress

1. What is Altamira?

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Q: 2. What is the 'Age of Discoveries' in the Context of Art in India?

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Q: 3. What is an Art? Argue.

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UNIT-2 HISTORY & DEVELOPMENT OF CAMERA

2.0: Unit Structure

2.1: Learning Objectives

Learners, this unit takes you through the journey of the evolution of cameras, the various concepts, principles and the technology and the people involved. The basic principles on which the camera functions has not changed. An understanding of the history of its evolution will help us better appreciate art and technique of filmmaking today. After having studied this unit you should be able to:

- explain the basic principles on which the camera functions;
- trace the course of the evolution of major photographic processes;
- explain the relationship of photographic processes with the evolution of cameras;
- discuss the role played by various individuals in the development of photography and cinematography; and
- discuss the relationship between still photography and motion pictures.

2.2: Introduction

The very first question that comes in the mind of a person going through this unit is that when was the first camera invented? Who invented it and where? And there are no exact answers to these questions. The reason: The ‘camera’ was not invented by a single person from a particular country on a particular date or even a year. Historians from different countries and in different times have tried to credit particular persons with the inventions. It must be kept in mind that these claims as well as the technological inventions themselves take place in particular political, cultural and economic contexts.

We know, however, that the first photographic camera were being worked upon by different inventors and artists in the first half of the 19th century and the first movie cameras were being put together in the later half.

But the principles on which these inventions were based had been known to human beings for centuries, and for millennia in some cases. Because of the role that the understanding of these principles had on shaping the camera, it would not be wrong to say that the story of the evolution of the camera is the story of the evolution of these ideas and principles. It is also equally the story of the people involved.

As discussed in Unit 1, human beings have been fascinated with motion and movement since the beginning of civilisation. This fascination strengthened into the necessity to capture the natural motion leading them to invent the movie camera. This unit will take you through the story of the evolution of the camera and the associated basic principles and contributions of some of the key inventors.

2.3: Some basic concepts and principles

i. Light

Light is the medium that photographers and cinematographers use to create their artworks. Having a basic understanding of its nature and behaviour was indispensable for the early inventors (as it is even today for photographers and cinematographers) in order to be able to tame it in the form of images. As such, human beings have tried to understand the nature of light for millennia. Several Greek scholars including Leucippus, Democritus, Empedocles, Ptolemy, Plato and Aristotle had propounded theories trying to explain the relationship between the human eye and the light and how we were able to see. However, it was not before the 10th-11th Century AD that the Arab Muslim scholar Abū Alī al-Ḥasan Ibn al-Haytham (Latinised name: Alhazen) explained the role played by the brain in the way human beings perceived the world around them. Out of around 200 books that he is said to have written on various topics, the seven-volume treatise titled *Kitab Al Manazer* or the Book of Optic remains a seminal work in the area. His work in the field of optics earned him the title of Father of Modern Optics.

Dutch scientist, Christiaan Huygens tried to explain the properties of light like reflection and refraction using his wave theory in 1678. Later, in 1704 the English Physicist Issac Newton published his influential book Opticks and proposed the particle nature of light. He had been working on understanding the nature of light and its composition since the 1660s.

His works about coloured light would pave the way for numerous advances in the field in the 19th century that would in turn play a crucial role in the invention of colour photography and cinematography.

ii. Lenses

Besides explaining visual perception, al-Haytham is also credited with explaining the functioning of a lens, which is essentially a curved disc of polished transparent material. It took another two centuries after his explanation for lenses to be put to practical use in the form of spectacles in the 13th century. The laws of refraction that he discovered in the 10th-11th century were also used in the 16th century when lenses were added to the camera obscura. It was found that due to its shape and the nature of the material (often glass), the lens bends rays of light allowing them to converge at the screen at the back of the camera. All these early advances in optics were an important contributor to the invention of photographic cameras in the 19th century.

The image formed by the tiny opening in the pin-hole camera produced a diffused image. Also, as the hole had to be small in order for it to work, the light source illuminating the object had to be strong. When the opening was replaced with a lens, it allowed the light rays to converge on the screen and thus produce sharp and clear images.

Secondly, it also allowed the opening to be bigger, thus allowing the formation of an image even with dimmer (less strong) sources of light. Eventually, with the invention of the back of the screen was replaced by a photosensitive material giving birth to the photographic camera.

iii. Photosensitivity

Image making had been a highly chemical-dependent process since its birth up until recently. In the early days of photography, a lot of the innovation had to do with experiments with different chemical compounds to get the image on a surface. None of this would have been possible without the discovery of photosensitivity, the characteristic of some chemical compounds to change their properties when exposed to light. This was first reported by the German professor Johann Heinrich Schulze in the 1720s after he found out that silver nitrate darkened when exposed to light. He tried and succeeded in using this property of the silver salts to create images using stencils, though the images would not remain intact for long as the whole surface would be darkened as soon as it would be exposed to light.

With this discovery, humanity had moved one more step closer to being able to capture the world around with ever more accuracy. Two major requirements favourable for the invention of photography were now known to humanity: obtaining an image of the real world on a screen and ability of certain compounds to change their colours based on the intensity of light. By the end of the 18th century it was also well established that different colors of light darken the silver salts differently.

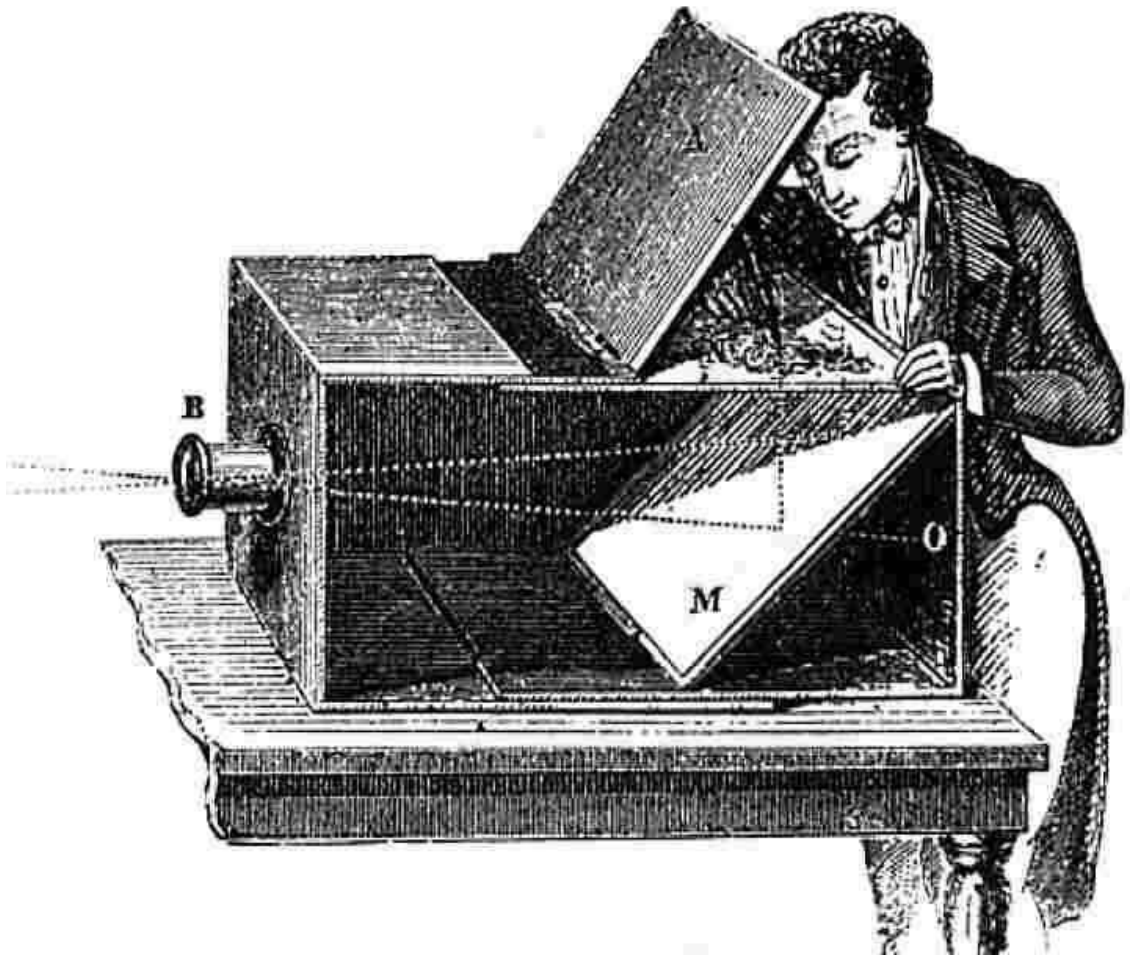
Since Schulze's discovery in the beginning of the 18th century to the late 19th century, the evolution of photography had more to do with finding a process and the right combination of

chemical compounds to get a quick and permanent impression of the image obtained in the camera obscura than anything else. It would take almost 100 years from the establishment of photosensitivity for a ‘fixed’ image to be taken and photography to be born in the truest sense in the beginning of the 19th century.

And since then, according to the Getty Conservation Institute, photographers, inventors and artists had developed more than 150 photographic processes.

2.4: Before the birth of photography: the camera obscura

The word ‘camera’ comes from Latin and is translated as a vault, a chamber or a room. Camera obscura refers to a “dark chamber” with a small opening to allow light to enter from the outside. It had long been observed that in such a case, the light entering from the small opening falls on the wall/screen on the opposite side to produce an inverted image of the outside scene.



Picture 01: An artist using the camera obscura to draw (19th Century)

The Greek scholars including Aristotle had tried to explain the principles behind the phenomenon in the 4th century BC. Ibn al-Haytham is also known to have talked about the phenomenon in his works in the 11th century. Several artists during the 14th and the 15th century used the mechanism to draw and paint detailed, realistic artworks. The functioning of the camera obscura also appears in the notebook (dated around the year 1490) of the polymath Leonardo Da Vinci. With the advancement of understanding about light and optics in general due to the works of Newton and other scientists in the 17th century, interest in the camera obscura and similar devices reached a new high in the 18th century.

Picture 2: One of the numerous versions of the camera obscura © The Board of Trustees of the Science Museum

(Source: http://collection.sciencemuseum.org.uk/objects/co8406387/unsigned-wooden-camera-obscura-camera-obscura)

Camera obscura of all shapes ranging from big rooms to tents and small boxes were being used for different purposes across the globe by the 1700s. The underlying, basic principle of every camera even today is the camera obscura.

2.5: Early 19th century: the birth of photography

The first half of the 19th century saw the birth of photography and its infancy with the inventions of what can be called the first generation of photographic processes. In the following sections we will learn about the evolution of these photographic processes and the camera through the stories of the pioneers of photography.

2.5.1 Nicéphore Niépce

French amateur inventor Joseph Nicéphore Niépce (1775-1833) is credited with producing the earliest surviving photograph. Before delving into the world of cameras and photography, Niépce became interested in lithography, a printing process that was becoming popular in France at the beginning of the 19th century.

After several experiments and attempts, he was able to use the camera obscura to capture a rough image in 1816 on a surface coated with light-sensitive chemicals. However, the image faded quickly. Niépce continued to evolve the process over the next one decade aiming to get a permanent image. He found success in around 1826 when he took an image of the courtyard from the window of his house in Châlons-sur-Saône, France.

***Picture 03: View from the Window at Le Gras,* First Photograph taken by Joseph Nicéphore Niépce in 1826**

(Source: Gernsheim Collection, Harry Ransom Center
https://www.hrc.utexas.edu/exhibitions/permanent/windows/southeast/images/niepce_old_large.jpg)

The plate that he used to get the image was made up of pewter, a tin-based alloy. He covered this plate with a type of asphalt known as bitumen of Judea, a light sensitive compound, and placed it at the back of a camera obscura fitted with a lens.

He called this process 'heliography' ("Sun Drawing") Due to the limitations of the camera and the compounds used on the plate; it took eight hours on a sunny summer day to get the image. The process was thus time-taking, cumbersome and therefore not fit to be commercialized.

2.5.2 Daguerre

Niépce died before he could see photography becoming popular. However, his compatriot and partner in the later years, Louis-Jacques-Mandé Daguerre (1787-1851) would take his work further by perfecting Niépce's method of photography, making it more practical, simpler, faster and one that produced excellent results. Daguerreotype, as Daguerre chose to call it, remained a dominant method for photography until the early 1850s with several modifications to the camera. This would in turn make his process the first commercial photographic process.

Daguerre was an artist. Even before delving into the world of photography he had been using the camera obscura to create large painted scenes and to create illusions using lighting techniques at a huge theatre in Paris in the early 1820s. After getting interested in photography, he partnered with Niépce and worked with him until Niepce's sudden death in 1833.

Daguerre's process included coating a reflective, polished copper plate with silver iodide to form the medium on which the photograph would be produced. This plate was exposed to light in the wooden camera for anywhere between 5 to 45 minutes. The exposed plate was finally developed using mercury vapour. There was no standard size of the plates, however most of the portraits are found to be around 2x3 inches.

This discovery was first announced on 7 January 1839. Highly impressed by Daguerre, the French physicist and politician François Arago convinced the French government to buy the invention and make it freely available to the people and so the government did. Subsequently, the whole process was revealed to the public in August 1839.

The original daguerreotype process would require the photographer to carry with them the kit consisting typically of the camera, a tripod, unexposed silver-coated copper plates, a soft buckskin pad for buffing the plates to ensure high reflectivity, a box for treating the plates with mercury vapour, and another set of boxes for the "fixing" process by fuming with iodine and bromine.

The camera went from being a bulky wooden box to compact portable instrument. Photographers and scientists also kept on experimenting with the different methods and compounds to further reduce the exposure time, increase the brightness and the durability of the finished photograph, and simplify the process further.

Daguerreotype had certain limitations. The images formed on the shiny silver-coated copper plates were delicate and prone to scratches and other forms of damages. One of the limitations of Daguerreotype was that it produced a positive image and there was no easy way to make multiple copies of the same image.

Given the cost of the materials involved, Daguerreotype was a costly process and thus remained out of reach of a vast majority of the masses. The cost of the camera and the whole setup, however, was prohibitively high.

Still, the daguerreotype photographic studios equipped with the camera designed by Daguerre spread from France and England and the rest of Europe to the US in the next few years. The customers were obviously from the affluent class.

In order to meet the initial demand for the cameras, Daguerre made arrangements with his brother-in-law Alphonse Giroux to produce the apparatus. The first batch of cameras were thus called the Giroux daguerreotype cameras.

More than anything else, the daguerreotype ushered humanity into an age when it was finally possible to capture reality more objectively than ever before. It also established camera as the quintessential tool that stimulated the desire for capturing moments and creating memories.

2.5.3 Fox Talbot

English scholar William Henry Fox Talbot (1800-1877) contributed to photography a process that remained in use until recently. This was called Calotype or the 'Talbotype', the negative-positive process that allowed the photograph to be duplicated unlike in the daguerreotype process where a direct positive was produced.

Instead of metal plates, it used light sensitive paper to obtain a latent image which could then be reproduced into multiple positive copies. Replacing the metal plate with paper made the apparatus lighter, less expensive, less fragile and less time consuming. The process also made it possible for the negative to be sensitized several days in advance and not immediately before the exposure like in Dagurre's method.

It may be kept in mind that the first man-made plastics were not created until 1862. Having all these advantages over daguerreotype, calotype had begun to replace the latter by the mid 1840s.

A major drawback of this process, however, was the loss of details because of the paper fibers absorbing the light-sensitive chemicals. Calotype photographs could not, however, match with the highly detailed and grainless images produced by daguerreotype. As a result it was soon replaced by a new process in the 1950s.

2.5.4. Scott Archer

Scott Archer overcame the drawbacks of the Calotype by introducing the wet-plate or the collodion process. This process included the positive aspects of both the Daguerreotype and the Calotype processes. This method produced sharp images like the former and had the benefit of reproducibility of the later.

In this process, the photosensitive paper was replaced by glass plates coated with potassium iodide and collodion. The plate was then dipped in silver nitrate in a dark room before placing them in the camera for exposure.

2.6: Mid-19th century: motion pictures and the movie camera

The second half of the 19th century saw significant transformations of the camera in terms of the complexity of their mechanism, their form and most importantly accessibility to them. The still camera evolved into the movie camera towards the end of the century leading to the birth of a new form of expression and communication - cinema.

The wet-plate method that required the photographs be developed immediately after they were taken was replaced by the dry-plate method that made the process faster. With modifications in the camera and the photographic medium the exposure time had come down to about 1/25 second. This was a significant leap from where we started - Niepce's 8 hour long exposure for the first surviving photograph. Hand cameras had arrived and the process was further simplified with the invention of man-made plastic that transformed photography and cinematography with the introduction of the transparent celluloid film. With these advancements, the demand for cameras increased that led to their mass production and subsequent drop in prices.

2.6.1. Persistence of Vision

We find Greek scholars mentioning their observations on the phenomenon through which moving fire-sticks gave the impression of producing streaks of light. Inventors in the 17th century had devised mechanisms to project static drawings using devices known as the magic lantern.

Towards the beginning of the 19th century, the concept of persistence of vision reemerged in the scientific community with several inventors working across the world on devices known as 'optical toys' that produced an illusion of motion through moving discs painted with sequence of images with slight changes in each subsequent 'frame' - the principle that is still used in the making of traditional animation films. These developments combined with the invention of photosensitive chemicals during the same time helped establish the foundations of photography.

2.6.2. Projection

Before a viewer experiences a movie projected on a screen, it has to be recorded. Interestingly, projection techniques in its broadest sense existed for over 2000 years before the techniques to record movies were invented. Even much before that, evidence of the use of a light source, like the fire, to create images on the walls of the caves with shadows existed. Some recent investigations have claimed that by shifting the torches that would partially light up the series of drawings and paintings in the caves, the prehistoric human beings could have experienced that could be likened to our experience of the films, at least animation films.

2.6.3. Animation - Understanding of Motion

Inventions in early animation technologies, often called the “optic toys”, in the early 19th century prepared the groundwork for the invention of the film camera towards the end of the century. Apart from establishing some of the principles that would be later used to build the film camera, these inventions could also be said to have introduced the people to the idea of moving images and increased the hunger for something more than the animations - capturing lifelike motion as we see through our eyes.

Before the invention of the movie cameras in the late 19th century, devices like zoetrope were already being used to produce the illusion of motion using a sequence of images with slight changes in each successive image.

This means that though projection and animation techniques existed together but were never combined until about 1879 when the British photographer Eadweard Muybridge invented Zoöpraxiscope. For his contributions that paved the way for the cinema, Muybridge is often called the Father of Motion Picture.

2.6.4. Louis Le Prince (28 August 1841-vanished 16 September 1890)

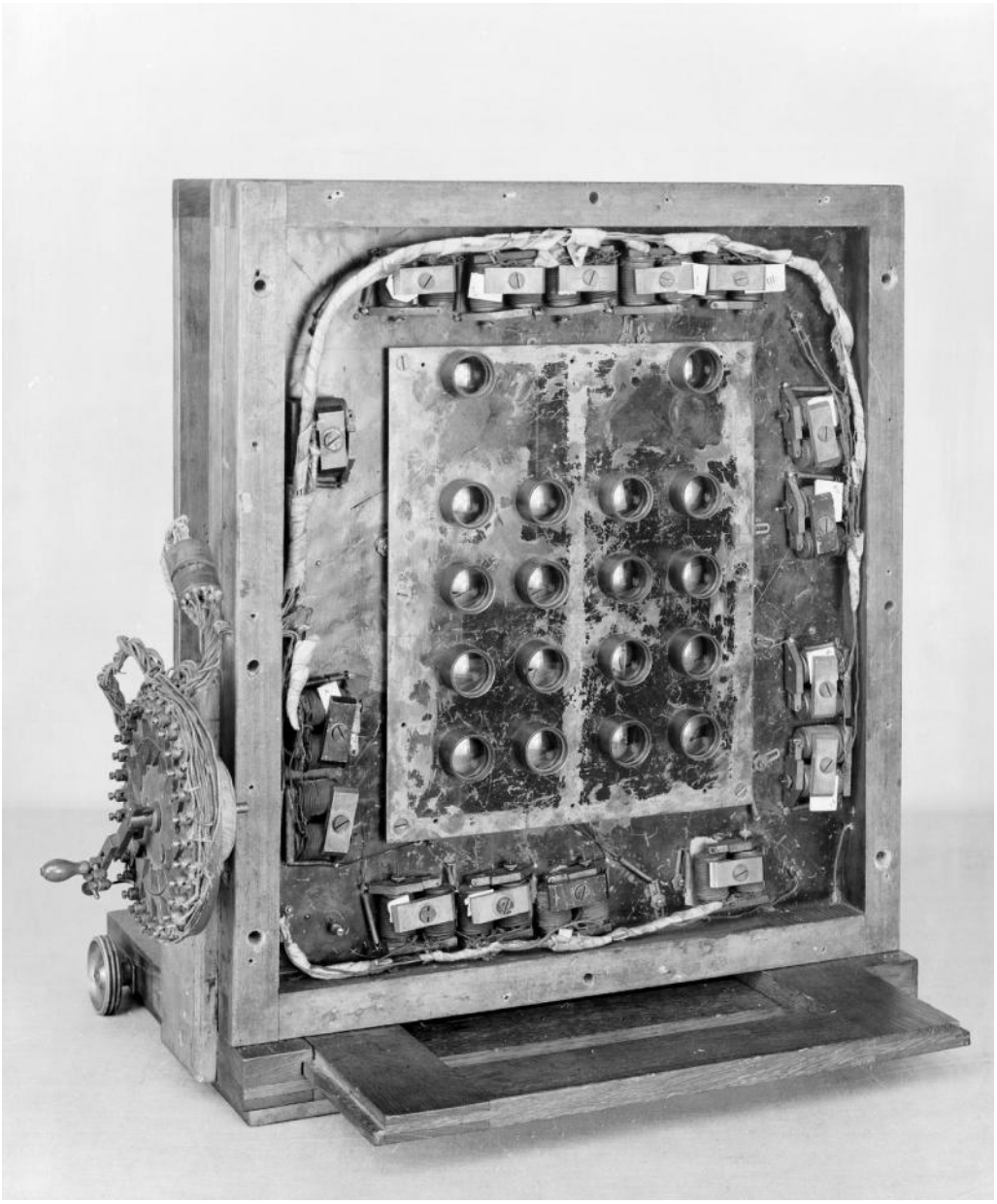
French inventor Louis Aimé Augustin Le Prince is a much lesser known name than most of the names mentioned in this unit. Yet, he is regarded by some as the father of cinematography. He is credited with recording the first ever motion pictures in 1888, years before the Lumiere brothers and Thomas Edison announced their versions of motion picture cameras. Two of his films that survive till this date are the Roundhay Garden and the Leeds Bridge scenes, shot in that order. The camera that he invented to record these films was the first ever single-lens cine camera that uses perforated paper-backed film as the recording medium.

Picture 04: Single Lens Camera invented in 1888 by Le Prince for filming motion pictures. Science Museum Group Collection.

© The Board of Trustees of the Science Museum

Even before this, in around 1886-87, Prince had invented another camera to record motion pictures (he calls it the photographic receiver - an apparatus for producing animated pictures

of natural scenery and life). This camera had 16 lenses and a complex system of shutters.[1] With this 16-lens mechanism, as per Prince's patent application, the camera was capable of taking from 960 to "several thousand" still images in 60 seconds.



Picture 05: Le Prince's 16-lens camera for filming motion pictures. Science Museum Group Collection. © The Board of Trustees of the Science Museum

Several of the principles that Prince used in his cine camera were used with some modifications by the later inventors in their cameras. Unfortunately, Le Prince mysteriously disappeared in 1890, shortly before he was to travel to the United States of America to promote his invention.

[1] https://blog.scienceandmediamuseum.org.uk/louis-le-prince-created-the-first-ever-moving-pictures/

2.6.5. Thomas Alva Edison (1847-1931)

The prolific American inventor and businessman, Thomas Alva Edison, held patents for more than 1000 inventions and ideas. Out of these, at least nine were directly concerning the motion pictures. Interestingly, out of these seven, he had filed two patent applications one for 'Apparatus for Exhibiting Photographs of Moving Objects' and another for the 'Kinetographic Camera' on the same date, i.e., 24 August 1891. While the patent for the former was issued almost 17 months later on 14 March 1893, he had to wait almost six years before the patent office would award the patent on 31 August 1897.

In his application for the device he called the 'Kinetographic Camera', Edison wrote: "The purpose I have in view is to produce pictures representing objects in motion…" He goes on to say that the other apparatus that he has applied for could be used to exhibit scenes of "moving objects in a perfect and natural manner."[2]

The uniqueness of Edison's camera lied in the use of a sprocket system that helped advance the film reels that had perforations on the sides for the purpose. Additionally, his camera used electricity to function unlike Lumiere Brothers' hand operated camera.

The celluloid film developed by George Eastman in 1889 met most of his requirements for the recording medium. He used the same in both the Kinetoscope and the Kinetograph.

The phonograph (1877), a device to record and play back sound, would pave the way for the 'talkies' or the sound films in the first two decades of the 20th century. Kinematograph (1889), on the other hand, ushered the era of cinema cameras. The electric incandescent bulb (1879) and the kinetoscope (1891) paved the way for film projection.

William Kennedy-Laurie Dickson (1860 – 1935) devised an early motion picture camera under the employment of Thomas Edison. He was a Scottish Inventor who was the official photographer of Edison's Company. William Dickson invented the first, practical, celluloid film, for this application. He slit a medium format roll film, which is 70 mm wide, and perforated the resultant 35 mm film. It is a standard format which is still in use to this day in cinema and photography.

William Dickson and his team, at the Edison lab, then worked on the development of the Kinetoscope for several years. The first working prototype was unveiled in May 1891.

[2] https://edison.rutgers.edu/patents/00589168.PDF

The design of system was finalised by late 1892. The fully developed Kinetoscope was officially unveiled at the Brooklyn Institute of Arts and Sciences on 9 May 1893.William Dickson is also considered as the first person to make a film for the Pope, and at the time his camera was blessed by Pope Leo XIII

2.6.6. Lumiere Brothers

French inventors in the late 19th century continued the legacy established by their compatriot predecessors in the field of still photography. Moving ahead from still photography, they were investing their efforts to dominate the field of motion pictures. The inventors were almost into a race of patenting inventions of all kinds and the world of photography, and later cinematography, was not untouched.

In 1885, the French inventors and brothers, August and Louis Lumière, with the help of Jules Carpentier came up with what was popularly known as the Lumière Cinématographe, a camera that could record as well as project moving images.

2.6.7. George Eastman (1854-1932)

Born on July 12, 1854, in New York, United States, George Eastman contributed immensely to the evolution of cameras and cinematography into its present form. As discussed earlier in the chapter, the 19th century was an exciting time for inventors and innovators. Eastman was born at a time when photography was still in its infancy with tremendous scope for improvements. The cumbersome Wet Plate collodion photography was still in vogue, the camera gear was still bulky and photography out of the reach of the common people. The entry of George Eastman to the world of cameras changed all this forever.

Like many other photography and camera pioneers of his time, Eastman had been working on developing a process that would not require the photographers to develop it immediately after it was taken. In the 1880s, after several experiments and studies of other techniques, he invented such a dry plate method that used an emulsion with gelatin that prevented the exposed image from damages and allowed to be transported easily. He also patented a machine to produce the dry plates in large numbers, thus laying the foundation of the Eastman Dry Plate Company that began operations in January 1881. The dry plate made the camera “as convenient as the pencil,” as he later put it. The dry plate method was quickly accepted by the photographing community and the demand for them soared in the first year of Eastman’s company. However, the plates on which the photographs were taken were made up of glasses which were fragile and heavy.

Eastman was now on a quest to find a more flexible and lighter alternative to the glass plates. These requirements gave way to the idea of a “film” or a continuous strip of flexible photographic material which could be stored in the camera itself.

Accordingly, modifications to the camera to accommodate such new medium and process were also being worked on. The idea of the “film” required a mechanism in the camera to advance the strip after every exposure. This also meant that the strip had to be strong enough to bear the stresses within the camera and also those it would undergo during the printing of the image without tearing.

2.7: The 20th century and beyond

The 20th century saw three major innovations in camera technology. These were: ability to record sound along with visuals, ability to record visuals in colour and digital recording. The sound and visual revolutionize the whole experience of cinema by shifting it from only visual sensation to one connecting it with aural feelings and understanding. Later on the visual reproduction of reality came much closer to real experience when the instruments were invented to record colour visuals. Now in the present time largely in the past few decades with the development of the digital cameras the film making process changed. With no reels to record and handy cameras along with the high resolution lenses the film production became very real.

2.8: Unit Summary

Cameras have come a long way from being a simple dark chamber with a hole. The story of modern cameras started with the invention of still photography that used the camera obscura in the beginning of the 19th century. The later half of the 19th century saw the birth of motion pictures and the movie cameras towards the end of the century. Photography pioneers most often developed their own cameras to suit the needs of the medium they were working on. As such, the evolution of the photographic medium was a major factor in the evolution of the camera. From being a tool in the hands of few skilled and highly patient artists and inventors it went on to become a household thing. As various technologies kept on advancing and being incorporated into it, the camera went on becoming ever more complex. The 20th century saw the onset of the digital revolution that touched on almost every aspect of our lives.

Cameras and films were no exceptions and technologies in these fields have since advanced by leaps and bounds. Today cameras are available in all sizes - from the handy GoPro action cameras to the huge IMAX cameras. Cameras have become an integral part of the smartphones and smartphones have become an integral part of our lives in turn. Consequently, more people have cameras and more people are creating content with that than ever before. This “democratization” of access to technology has already modified and is expected to change further the concepts of the form and content of cinema.

2.9: Check Your Progress

1. Write short notes on some of the basic principles that are behind the functioning of cameras in general.

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_____
_____
_____
_____

2. List down the names of some of the pioneers of photography and motion pictures along with their major contributions to the field.

_____
_____
_____
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UNIT-3 THE SILENT ERA

3.0: Unit Structure

3.1: Learning Objectives

Learners, you should be reminded of the learning objectives before proceeding with the discussion of this unit. After going through this unit you would be able to:

a. Understand the beginning of Cinema, from the silent era to the talkies and the development of technologies and theatre;
b. Describe the contributions of various personalities of the Western Cinema; and
c. Analyse the phenomenon of commercialization of Western Cinema.

3.2: Introduction

This unit acquaints the learner with the whole development of the world called cinema. It deals with how the films of George Méliès, Charlie Chaplin, Orson Welles and Edwin Porter shaped the western cinema. The whole development of cinema from the time of Lumeire brothers to the silent era to the talkies took to the new heights. This era saw the rise of star system and further technological advancement in terms of sound and production equipments leading to the experimentation in the films. As the technology and the medium got matured, the commercialization of the films started. The theatre also gave cues and shaped the film and its style. Starting from the mise-en-scene to the blocking and acting techniques adopted from the stage changed the face of cinema. This unit will look into all these aspects. Let us proceed to discuss all the concepts and development of cinema.

3.3: The Silent era – Lumiere brothers

The Silent Era of cinema existed from the year 1895 to 1930. Moving pictures or Cinema is proclaimed to be first projected by Auguste Lumiere and Louis Lumiere also known as the Lumiere Brothers in December 1895 when they created the film La Sotie des ouviers de l'usine Besancon, 1895 (Workers Leaving the Lumiere Factory, 1895) which was considered the first motion pictures. However, the invention of the moving picture was made possible only by the efforts of Thomas Alva Edison and his team who had built the Kinetograph. Their continuous effort from 1889 to 1893 built a workable but bulky camera, the Kinetoscope.

It is considered that Lumiere Brothers are the French inventors and pioneer manufacturers of photographic equipment who devised an early motion-picture camera and projector called the Cinemtographe (the word Cinema derived its name from here only). The Lumiere apparatus consisted of a single camera used for both photographic and projecting at 16 frames per second. Their first films recorded everyday French life, e.g., The Arrival of a Train, A Game of Cards, A Toiling Blacksmith, The Feeding of a Baby, Soldiers Marching, Activity of a City Street. During the year 1896, they made around 40 films.

The Lumiere Brothers held their first private screening of projected motion pictures in 1895 on March 22 in Paris at the 'Society for the Development of the National Industry', in front of an audience of 200 people. The public debut came a few months later and consisted of the following 10 short films at the Grand Café in Paris. They were -

1. *La Sortie de l'usine Lumière à Lyon* (the exit from the Lumière factory in Lyon", or, under its more common English title, *Workers Leaving the Lumiere Factory*)
2. *Le Jardinier (l'Arroseur Arrosé)* (The Gardener, or The Sprinkler Sprinkled)
3. *Le Debarquement du congres de photographie a Lyon* (The Disembarkment of the Congress of Photographers in Lyon)
4. *La Voltige* (Horse Trick Riders)
5. *La Pêche aux poissons rouges* (Fishing for Goldfish)
6. *Les Forgerons* (Blacksmiths)
7. *Repas de bebe* (Baby's Breakfast or Baby's Meal)
8. *Le Saut a la couverture* (Jumping Onto the Blanket)
9. *La Places des Cordeliers à Lyon* (Cordeliers Square in Lyon—A Street Scene)
10. *La Mer (Baignade en mer)* (The Sea [Bathing in the Sea])

The moving images had an immediate and significant influence on popular culture with *L'Arrivee d'un Train en Gare de la Ciotat* (literally, "The Arrival of a Train at La Ciotat", but more commonly known as *Arrival of a Train at a Station*) and *Carmaux, defournage du coke* (Drawing out the Coke). Their actuality films, or *actualities*, are often cited as the first, primitive documentaries.

3.4: George Méliès

Georges Méliès was the compatriot of Lumiere Brothers. He was very much influenced by Lumiere Brothers' motion pictures. So much so that he became theworld's leading producer of fiction films during the earlycinema period. However, he did not make documentaries like the Lumiere Brothers'. His cinema was captured in a room. He used different techniques in his pictures and loved to experiment with the moving pictures. Méliès started his own production in Star Film Company in 1896 and by 1897 he had owned a studio outside Paris. He produced hundreds of films between 1896 and 1912.

Méliès loved effects in his cinema and he became well known for his use of special effects, popularizing techniques such as substitution splices, multiple exposures, time-lapse photography, dissolves, and hand-painted colour.

His films include *A Trip to the Moon* (1902) and *The Impossible Voyage* (1904), both involving strange, surreal journeys and are considered among the most important early science fiction films, though their approach is closer to fantasy.

Méliès directed over 500 films between 1896 and 1913, ranging in length from one to forty minutes. In subject matter, these films are often similar to the magic theatre shows that Méliès had been doing, containing "tricks" and impossible events, such as objects disappearing or changing size. These early special effects films were essentially devoid of plot. The special effects were used only to show what was possible, rather than enhance the overall narrative. Méliès early films were mostly composed of single in-camera effects, used for the entirety of the film. For example, after experimenting with multiple exposure, Méliès created his film, *The One-Man Band*, in which he played seven different characters simultaneously. Some of the most famous films of Méliès were A Trip to the Moon, The Kingdom of the Fairies, The Impossible Voyage, A Terrible Night, The Vanishing Lady, The Haunted Castle, and The Astronomer's Dream.

3.5: Charlie Chaplin

Sir Charles Spencer Chaplin or Charlie Chaplin is a synonym to English comedy. World famous for his silent British comedy, a producer, a writer, a director and a composer, Charlie Chaplin was born on April 16, 1889 who spent his early childhood in London.

Even he spent his early childhood in extreme poverty and tragedy, he turned out to be the greatest comic artist of the screen and one of the most important figures in motion-picture history. He had a career span of more than 75 years, from childhood in the Victorian era until a year before his death in 1977.

Charlie Chaplin had a very struggling life even before he was ten. As The Oxford History of World Cinema states, Chaplin used all the experience of humanity he had absorbed in the first ten years of his life. At the age of 19, he was signed to the prestigious Fred Karno Company, which took him to America. There he scouted for the film industry and began appearing in 1914 for Keystone Studios. He soon developed the Tramp Persona and formed a large fan base. He directed his own films and continued to sharpen his crafts as he moved to the Essanay, Mutual and First National corporations. By 1918, he was one of the best known figures in the world.

In 1919, Chaplin co-founded the distribution company, United Artists, which gave him complete control over his films. His first feature-length film was *The Kid*, followed by *A Woman of Paris*, *The Gold Rush*, and *The Circus*. He did not agree to move to sound films even after the advent of sounds in cinema and produced *City Lights* and *Modern Times* without dialogue.

Chaplin had developed a political bend in later years and he came up with his film *The Great Dictator* which satirized Adolf Hitler. It was during the 1940s when Charlie Chaplin could not keep himself away from controversies. He was accused of communist sympathies, while he created scandal through his involvement in a paternity suit and his marriages to much younger women. An FBI investigation was opened, and Chaplin was forced to leave the United States and settle in Switzerland. He abandoned the Tramp in his later films, which include *Monsieur Verdoux*, *Limelight*, *A King in New York*, and *A Countess from Hong Kong*. Charlie Chaplin's *The Gold Rush*, *City Lights*, *Modern Times*, and *The Great Dictator* are often ranked on lists of the greatest films of all time.

3.6: Orson Wells

George Orson Welles or Orson Welles born at Wisconsin in United States is remembered as an American motion-picture actor, director, producer and writer. He had unique innovative narrative techniques in films. Welles wrote, directed, produced and even acted in his film Citizen Kane (1941). This film of him became one of the most-influential films in the history of art. He used photography, dramatic lighting and music to enhance the elements of his movies.

Welles as a child was interested in piano and violin, acting, drawing, painting, and writing verse. He used to entertain his friends by performing magic tricks and staging mini productions of William Shakespeare's plays.

As Edward R. O'Neill summarizes his ending, he states that at the time of Welles death, he left numerous unfinished projects, ranging from scripts to scraps of film to partially edited works. His film *Don Quixote*, which he had never finished, was recently completed by other hands. Welles's films often centre on a powerful figure and an outsider, the latter being caught up in the former's search for a lost past, the narrative that emerges itself caught between truth and fiction. O'Neill adds that Welles enjoyed creating (and playing) figures who were braggarts and liars, or were surrounded by a web of mystery and deceit, never fully uncovered.

Welles' *Citizen Kane* (1941) is arguably the greatest movie ever to come out of Hollywood, and it is surely one of the most impressive debuts by any director. Welles also produced and co-scripted the film with Herman J. Mankiewicz.

Welles had been a master of various roles till the time he died in 1985 at the age of 70. He had been a character who was, the powerful man and the outsider, the master trickster and the roving vagabond.

Some of his notable works include The Magnificent Ambersons, Touch of Evil, The Lady from Shanghai, The Other Side of the Wind, The Third Man.

3.7: Development of film technology and theatre

The introduction of motion pictures and their acceptance created a new form of connection in the world. It had also opened the scope of inventions and improvements. Film technology and theatre had been growing and developing since then. Still pictures were converted to motion pictures, silent films were taken over by sound and dialogue films and black and white was replaced by colour films.

Directors had started owning studios instead of hiring laboratories for developing their films. Short documentaries were replaced by full length feature films.

Cinema reconfigured different technologies that all were available from the late 1880s onwards. Some of them to name are photography, taking negative pictures and printing positives (1880s), roll films, celluloid, high-sensitivity photographic emulsion, projection and movement dissection/ persistence of vision. The invention of roll film of celluloid which was sturdy, flexible and mobile by George Eastman in 1889, started being adapted instead of hard glass plates which were used earlier.

Once the motion pictures had found stability, the necessity of developing of sound technology could not be resisted. In the first years talking pictures focused on two areas.

One involved the development of blimped cameras, directional microphones, microphone booms, and quieter lights, so that sound could be recorded more cleanly at the time of shooting. The other technologies involved the ability to add, edit, and mix sound separately from the time the picture was recorded.

Somewhere during 1914, several national film industries were established. Europe, Russia and Scandinavia were as important as America. Films became longer, and storytelling, or narrative, became the dominant form. As more people paid to see movies, the industry which grew around them was prepared to invest more money in their production, distribution and exhibition, so large studios were established and special cinemas built. The First World War greatly limited the film industry in Europe, and the American industry grew in relative importance. The first 30 years of cinema were characterized by the growth and consolidation of an industrial base, the establishment of the narrative form, and refinement of technology.

Thomas Edison had used perforated 35mm film in the Kinetoscope. In 1909, this was adopted as the industry standard. The picture had a height-to-width relationship known as the aspect ratio of 3:4 or 1:1.33.With the advent of optical sound, the aspect ratio was adjusted to 1.37:1. Although there were many experiments with other formats, there were no major changes in screen ratios until the 1950s.

During the 1930s and 1940s, cinema became the principal form of popular entertainment. In Britain, the highest attendances occurred in 1946, with over 31 million visits to the cinema each week.

3.8: Talkies era – Hollywood

The Talkies Era of Hollywood started somewhere after 1925. However, 1930s mark the beginning of the Talkies Era in the history. There is a different story of adding sound to silent

films around the world. The gradual transition from silent films to talkies included many small steps like technological developments and adjustments to audience expectations before they were complete.

In 1926, Warner Brothers introduced a new sound-on-disc system. In this system, sound effects and music were recorded on a wax record that would later be synchronized with the film projector. In order to exhibit this new technology, Warner Brothers released "Don Juan", the first motion picture to have a pre-recorded score and synchronized sound effects. Although "Don Juan" proved to be a box-office hit, many movie studios still refused to adapt to talking picture technology, believing that "talkies" would never replace silent pictures. However, the second sound film, "The Jazz Singer" changed these opinions, and in doing so, changed the history of motion pictures forever. The Jazz Singer used the Warner Brothers' Vitaphone system, which used a separate record disc with each reel of film for the sound. This system proved unreliable and was soon replaced by an optical, variable density soundtrack recorded photographically along the edge of the film.

By early 1930s, nearly all feature-length movies were presented with synchronised sound and, by the mid-1930s, some films were released in full colour also.

3.9: Commercialization of western cinema

Like other major innovations such as the automobile, electricity, chemicals and the airplane, cinema emerged in most Western countries at the same time. It had become a major source of mass entertainment and had started developing like an industry. The western world was the major contributor to this medium before the First World War and had been ruling this industry like a pro.

In Italy, the film industry was the fourth-largest export industry before the First World War. In the depression-struck U.S., film was the tenth most profitable industry, and in 1930s France, it was the fastest-growing industry, followed by paper and electricity, while in Britain the number of cinema-tickets sold rose to almost one billion a year. The rise of big production houses and the star system further took the commercialization of the movies to a new height.

Cinema was then being sold as a fantasy product which gratified the audience's need and desires. It was then where big production houses had come up and producers were happily investing in the film industry.

3.10: Edwin s Porter

Edwin Porter was the pioneering American film director who used innovative dramatic editing (piecing together scenes shot at different times and places) in his films. His creation 'The Great Train Robbery' is considered to have revolutionized filmmaking. It was probably Porter's experience as a projectionist at the Eden Musee that ultimately led him in the early 1900s to the practice of continuity editing. The process of selecting one-shot films and arranging them into a 15-minute program for screen presentation was very much like that of constructing a single film out of a series of separate shots. Edwin Porter was influenced a lot by Georges Melies film A Trip to the Moon.

Porter made over 200 films between 1901 and 1908. His work is often held up as a precursor to Griffith's 'The Birth of a Nation' in establishing the structure and codes of cinematic language and classic filmmaking (Griffith even makes a star appearance in Porter's Rescued from an Eagle's Nest (1908) featured here).

3.11: Unit summary

Since the day of inception of films and theatre, it has developed everyday with every movie and every act. From motion-picture camera to projector, single camera production to multiple camera production, silent movies to recording sound, editing in pictures and sound, creating special effects to animation, film and theatre has grown every now and then.

From black and white movies to colour films where colour was first added to black-and-white movies through tinting, toning and stencilling. By 1906, the principles of colour separation were used to produce so called 'natural colour' moving images with the British Kinemacolor process, first presented to the public in 1909. The early Technicolor processes from 1915 onwards were cumbersome and expensive, and colour was not used more widely until the introduction of its three-colour process in 1932.

Producing cinemas have become a complex process now but the influence of olden days cannot be unseen. The cinema industry has grown like any other industry of the world contributing a huge cut to the world economy today.

The inventions of early directors who did not stick to one role rather being actors, producers, script writers as well were worth their efforts.

So, learners we can conclude by summarizing what we have learned. We have discussed the development of cinema in the early era. It is during this time many maverick film makers came out who experimented with the medium. These include Lumiere brothers, Edwin Porter, Charlie Chaplin, George Melies, Orson Welles and many more. The films where actualities were shot and shown to the audience for a price later on became the full-fledged industry turning into a commercial product. This is the growth of cinema in the silent and talkie era.

3.12: Check Your Progress

Q. 1. Discuss the work and art of Charlie Chaplin.

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Q: 2. Describe the development of cinema in the talkie era.

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Q: 3. Discuss the work and art of George Méliès.

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UNIT-4 CONCEPTS OF REALISM

4.1: Learning Objectives

After going through this unit, the learners would be able to:

(a) Understand the concept of realism, neo-realism, and neo-classical cinema;
(b) Discuss the Soviet school of film making; and
(c) Describe the work and art of different pioneers and film makers who contributed in the aforementioned film movements.

4.2: Introduction

Cinema ever since its inception experimented and innovated with the new ideas, thoughts, style, techniques and technologies. These innovations gave rise to a new form of cinema from time to time which shaped the course of cinematic history. The innovation and change were given names of a movement in terms of the idea which it put forth. Some of the notable film movements which will be discussed in this unit are realism, neo-realism, and neo-classical cinema. Further, the discussion on the Soviet School of film making and French New Wave Cinema would be done.

In doing so the contributions of the leading pioneers like Vittoria De Sica, Sergie Eisenstein, I. Pudvokin, Andre Bazin, Francois Truffaut, Jean Luc Godard will be highlighted. Let us discuss in detail.

4.3: Concept of Realism

The term Realism deals with the accurate, detailed, unembellished nature or contemporary life of arts. It rejects the imaginative ideals which enhance the external beauty. Rather, it pays close attention to the outward, brutal, naked truth and observation. The roots of Realism are found in the realm of France. Discarding Classicism and Romanticism's artificiality, directors of the era focused on the contemporary depiction in an effective art work. Here, they focused to portray the lives, appearances, problems, customs, and mores of the middle and lower classes, of the unexceptional, the ordinary, the humble, and the unadorned. They tried to show reality in their own natural surroundings. The world had seen and suffered a lot after the World Wars.

The earlier actualities are also referred to as realist films. The major drawback of fantasy films was post World War II. It was then that directors like Vittorio De Sica, Roberto Rossellini and others came up with movies that focused only the general and social issues. Realism came like a movement in cinema. However, even Realism has different faces. It was used both as seamless and aesthetic. Andre Bazin happened to be the promoter of aesthetic realism and thus mentioned that, 'films cannot be fixed to mean what it shows'. In later years various film directors and critics admitted that realism is one of the most important functions of cinema.

The directors of realism made a point to have non-professional actors, natural light and on-location shoot to maintain the spirit of realism.

4.4: Neo-realism or Italian neo-realism

The theory of Realism and its acceptance worldwide gave a way to Neo-Realism or Italian Neo-Realism. Unlike realism, Neo-Realism cinema hung between life and fiction. It focused on the objectivity of a documentary and again non-professional actors found their way to cinema. It even used segments of documentaries as a part of cinema.

Vittorio De Sica's 'The Bicycle Thief' is still considered to be the best example of this genre. No doubt Neo Realism is also known as the Golden Age of cinema.

Italy was one such nation which had to suffer a lot post World War II. Italian Neo Realism cinema came up as a movement to showcase the economic and moral conditions of Italy. The major theme of cinema of this age was poverty, oppression, injustice or desperation.

Some of the key points that were common in Neo Realistic films were that they were based on social contexts; they had a sense of historical actuality and immediacy. Also, it showed political commitments and progressive social change. It focused on authenticating the scenario rather than beautifying it.

Some of the precursors of neo-realistic cinema are The Open City and Paisan, Land without Bread, 1860, An Inn in Tokyo, Toni, Aniki-Bobo, People of the Mountains.

4.5.1: Vittoria de sica

Vittorio De Sica was born on 7 July 1901 and he died in the year 1974. He was an Italian film director and actor and referred to as a pioneer of neorealist film movement. Vittorio De Sica is the name which became very well known for his direction of The Bicycle Thieves. De Sica directed some 30 films during his career. As Morando Morandini mentions in The Oxford History of World Cinema, his career as a director can be divided into four periods. First, the preparatory phase which includes him as an important precursor of neo-realism. His second phase can be called the creative phase where he came up with films like Shoeshine, The Bicycle Thief, Miracle in Milan and Umberto D. His third phase can be termed as a period of compromise and the fourth phase, a phase of decline with some ten films. He got four academy awards for his films, Sciuscià, Bicycle Thieves, Yesterday, Today and Tomorrow and Il Giardino dei Finzi Contini.

4.5: Neo Classical Cinema

Neo classical may refer to as Neoclassicism or New Classicism. It is any of a number of movements in the fine arts, literature, theatre, music, language, and architecture which began in the 17th century. Neo-classicism is the artistic and creative movements that reflect qualities of ancient Greek and Roman philosophy, culture and art. After the excavations of Herculaneum and Pompe, the admiration for classical Roman and Greek art renewed. Thus the efforts for style to accompany philosophy caused a return to the ‘classics’.

In the initial phase, subject matter of neoclassical art included a reverence for nature, tradition and the classics, moral values (such as nationalism and courage) and distrust for innovation.

Jacques-Louis David's Oath of the Horatii can be considered as a turning point for the beginning of the neoclassic style.

Neoclassical theorists put forth the idea of return to the values and conventions of classical Greek drama. In particular, theorists ascribed a great importance to the Poetics of Aristotle, and to the unities of time, place, and action that they took from this work.

In France, the unities became rigidly formalized and the neoclassical style achieved its fullest expression in the works of Cornielle and Racine. Joseph Addison's blank-verse tragedy Cato (1713) was the one of the most popular neoclassical works on the English stage.

Films also took cue from other arts as it is the combination of different arts. Neoclassical films occur from time to time. Some of the examples of neoclassical films can be The Ten Commandments and Ben Hur.

4.6: Soviet School of Film Making

Soviet Cinema or Russian cinema included cinema from the province of the Soviet Union. Soviet Montage is one of the most famous elements of the Soviet Cinema. This cinema reflected culture, language and history of the pre-Soviet. A new idea of social realism was propagated by the Soviet Communist Party.

Most prolific in their republican films, after the Russian Soviet Federative Socialist Republic, were Armenia, Azerbaijan, Georgia, Ukraine, and, to a lesser degree, Lithuania, Belarus and Moldavia. At the same time, the nation's film industry, which was fully nationalized throughout most of the country's history, was guided by philosophies and laws propounded by the Soviet Communist Party which introduced a new view on the cinema, socialist realism, which was different from the one before or after the existence of the Soviet Union. Sergei Eisenstein, Lev Kuleshov, V. I. Pudvokin are the notable few who established the soviet school of film making. Lets discuss the contribution of Eisenstein and Pudvokin.

4.6.1: Eisenstein (Montage and Mise-en-scene)

Sergei Mikhailovich Eisenstein was born in Russia. He was a Soviet film director considered as the pioneer in the theory and practice of montage. He is one of the few directors who not only made films but written books on the film making process. His writings and films have continued to have a major impact on the later filmmakers.

Eisenstein believed that editing could be used for more than just expounding a scene or moment, through a "linkage" of related images. Eisenstein felt the ‘collision’ of shots can be put to manipulate the emotions of the audience which would create film metaphors. He thought that an idea should be derived from the juxtaposition of two independent shots, thus he brought an element of collage into films. He developed what he called ‘methods of montage’. There were five kinds of montage mentioned by Eisenstein which included Metric, Rhythmic, Tonal, Over tonal, and Intellectual.

Eisenstein focused on teaching the technicalities of directing, photography, and editing. He encouraged his students to develop their individuality, expressiveness, and creativity. Eisenstein's used politically charged pedagogy, like his films. He often used to quote Vladimir Lenin in his teachings.

Eisenstein did not use professional actors in his early films. His narratives included individual characters and addressed broad social issues, especially class conflict. He engaged the stock characters in his films and the roles were done by the untrained people from the appropriate classes. He avoided casting stars in his films. Eisenstein's vision of communism brought him into conflict with officials in the ruling regime of Stalin. Eisenstein envisioned a new society which would subsidize artists totally as believed by the other Bolshevik artists. He believed in leaving artists absolutely free to create, but budgets and producers were as significant to the Soviet film industry as the rest of the world. Due to the war and the impact of revolution, this new country was not having resources initially to nationalize its film industry. Later on when it was nationalized, limited resources both monetary and equipment required production controls as extensively as found in the capitalist world.

Eisenstein and his contemporary, Lev Kuleshov, two of the earliest film theorists, argued that montage was the essence of the cinema. His articles and book, particularly *Film Form* and *The Film Sense*, explain the significance of montage in detail. The silent films, *Strike* (1925), *Battleship Potemkin* (1925) and *October* (1928), are the most influential work of Eisenstein. Also his historical epics *Alexander Nevsky* (1938) and *Ivan the Terrible* (1944, 1958) is often referred to when cinema language is taught. The magazine *Sight & Sound* in its decennial poll named *Battleship Potemkin* as the 11th greatest movie of all time.

4.6.2 MISE-EN-SCENE

Mise-en-scene or Mise en scene is one of the most important terms in cinematic vocabulary. *Mise-en-scene* simply put is how the various elements within a frame interact to create

meaning and tell a story. These elements include sets and physical landscapes, lighting, props, costumes, actors, and the movement within a frame. Through where and how a component is placed in the picture, the director sends us messages about that object or character. For example, we can determine the dominance of characters in a scene based on whether they are positioned in the foreground or background, in a central or peripheral spot, well-lit or in the dark. We read into the relationship between the various elements we see: their comparative size, centrality, focus and placement in light or shadow. Thus if a character appears as a tiny speck on a vast landscape, we are told that an individual human being is insignificant in comparison to the mighty power of nature. So, the arrangement of everything that appears in one frame, i.e., actors, lighting, décor, props and costumes is called mise-en-scene. This is a French term which means 'placing on stage' or 'staging'.

Film theorist, Andre Bazin, defined mise-en-scene exclusively to a style of filmmaking that emphasizedthe way cinema probes depth and further explores the relationship between space and time. Still, Bazin's definition focused on the things that populate the frame and the meaning it creates. However, his understanding of mise-en-scene describes filmmaking technique which favors long takes, choreographed movement and deep focus (a large depth of field that keeps more objects within the frame in focus). Bazin argued that long takes with masterful organization of both the camera and the actors and objects within frame represented a more sophisticated control and a better representation of 'objective' reality. As Fandor's Scott Smith puts, "When successfully executed, the residual effect of mise-en-scene is the all-encompassing feeling that a whole world is in motion far beyond the reaches of the frame." The idea of *mise-en-scène*is a counterpoint to the Soviet theory of montage which believed in the manipulation of two shots. J. Dudley Andrew argues in *The Major Film Theories: An Introduction* (1976) that "Bazin opposed to the type of montage, the so-called 'depth of field' technique which permits an action to develop over a long period of time and on several spatial planes." He further added that "if focus remains sharp from the camera lens to infinity, then the director has the option of constructing dramatic interrelationships within the frame (this is termed *mise en scene*) rather than between frames." Bazin preferred such depth of field shooting to montage constructions for three reasons:

a. it is inherently more realistic;
b. certain events demand this more realistic treatment; and
c. it confronts our normal psychological way of processing events, thereby shocking us with a reality we often fail to recognize.

One filmmaker whose films consistently and neatly fit Bazin's definition of *mise-en-scene* is Jean Renoir. His 1939 film, *The Rules of the Game*, makes use of deep focus photography, allowing the viewer to clearly see what is happening on multiple planes within a given frame. In this film static shots and frequent cuts were not used. Instead the camera glides gracefully through the opulent halls of the country estate in which the narrative takes place. It captured highly detailed, exquisitely choreographed interactions between the numerous characters.

However, in Eisenstein's *October: Ten Days That Shook the World* (1928), action happens within the frame while the camera remains static. Rather than creating meaning by moving the camera through space, the film generates its meaning between instead of within frames. The stories and ideas emerge in the cuts between different images. Although *October* of Eisenstein do not fit in Bazin's definition of the *mise-en-scene*, one can read the film in light of the broader definitions of the term (as the interaction and choice of all elements within a frame).One can see that Eisenstein tell a story with his specific choices of lighting, movement, and setting within the film's carefully composed frames.

4.6.3: Pudvokin

Vsevolod Illarionovich Pudovkinwas a Soviet (Russian) film director, screenwriter and actor. He was the one who developed influential theories of montage. Pudovkin's masterpieces are often compared with those of his contemporary filmmaker Sergei Eisenstein. Eisenstein utilized montage to glorify the power of the masses whereas Pudovkin preferred to concentrate on the courage and resilience of individuals. He was granted the title of People's Artist of the USSR in 1948.

When it comes to Russian filmmakers, the first names that come to nearly everyone's mind are Andrei Tarkovsky and Sergei Eisenstein. Both were exceptional, and Eisenstein is seen as the father of modern montage theory. But Vsevolod Pudovkin provided his own montage theory which was slightly different from that of Eisenstein. His style formed the foundation of the classic Hollywood style of editing the technique which is used in almost every film today.

Pudovkin was the student of Lev Kuleshov. Kuleshov was arguably the very first film theorist and he was the one who demonstrated that editing meant more than splicing bits of film together to form a coherent story. Editing was powerful and could evoke emotions based on their order and juxtaposition. It is argued that Pudovkin was the co-creator of the experiment.

Pudovkin believed editing, i.e., the organization and placement of shots, was a means of expression that was unique to filmmaking. It was something that wasn't done in literature, theater, paintings, or the plastic arts. It can be understtod that the foundation of film art is editing.

Pudovkin's five editing techniques are contrast, parallelism, symbolism, simultaneity, and leitmotif. Each of these techniques is used in almost every film made around the world.

4.7: French New Wave Cinema

The French New Wave is referred to as a reaction against the commercial production system. There is well-constructed plot, the limitations of a merely craftsman like approach and the French tradition of quality with its heavy reliance on literary sources. Its aesthetic theory required every detail of a film's style to reflect its director's sensibility as intimately as a novelist's prose style retraces the workings in depth of his mind hence, the term *le camera-stylo* ('camera-pen'). The emphasis lay on the visual nuance. In keeping with a general denigration of the preconceived and the literary, the script was often treated less as a ground plan for a dramatic structure than as merely a theme for improvisation. Improvised scenes were filmed, deploying the visual flexibility of newly developed television equipment (e.g., the handheld camera) and techniques (e.g., extensive post synchronization of dialogue). The minimization of costs encouraged producers to gamble on unknown talents, and the simplicity of means gave the director close control over every aspect of the creative process, hence Truffaut's term *auteur*, or film author.

There are three prominent figures associated with the French new wave movement. Those are Andre Bazin, Francois Truffaut, and Lean Luc Godard. Let us discuss about them one by one.

4.7.1 ANDRE BAZIN

Andre Bazin is a influential French film critic and theorist. He started to write about films in the year 1943. In 1951, he along withJacques Doniol-Valcroze and Joseph-Marie Lo Ducaco-founded the renowned film magazine,*Cahiers du cinema.* He argued that realism is the most important function of cinema where the life is portrayed the way it is. He promoted the idea of objective reality, deep focus, and lack of montage in films which is often linked to his belief that the interpretation of a film should be left to the audience. This idea placed him in opposition to the montage theory of the 1920s and 1930s emphasizing how the cinema could manipulate reality.

Andre Bazin was a major figure in post-World War II film studies and criticism.He died at an early age of 40 years. Until his death he edited *Cahiers du Cinema*, and a four-volume collection of his writings was published posthumously, covering the years 1958 to 1962 and titled *Qu'est-ce que le cinema?* (*What is Cinema?*).

The standard view of Bazin's critical system is that he argued for the films which depicted 'objective reality' (documentaries and films of the Italian neo-realism school) and directors who made themselves 'invisible' (such as Howard Hawks). He promoted the use of deep focus (Orson Welles), wide shots (Jean Renoir) and the 'shot-in-depth'.

He preferred 'true continuity' through *mise-en-scene* over experiments in editing and visual effects. He watched film as personally as he expected the director to undertake it. His personal friendships with many directors he wrote about also furthered his analysis of their work. Bazin also preferred long takes to montage editing. He believed that less was more, and that narrative was a key to great film.

4.7.2. FRANCOIS TRUFFAUT

Francois Truffaut was a French film critic, director, and producer. He questioned and attacked the established filmmaking techniques which led to paving the path for the movement known as the Nouvelle Vague (new wave).

Truffaut was born into a working-class home. His own troubled childhood provided the inspiration for *Les Quatre Cents Coups* (1959; *The 400 Blows*), a semi-autobiographical study of a working-class delinquent. It is the first of the Antoine Doinel trilogy, tracing its hero's evolution from an antisocial anguish to a happy and settled domesticity. This film got the best direction prize at the 1959 Cannes film festival. It established Truffaut as a leader of the French cinema's new wave. This film movement influenced the rising generation of filmmakers around the world.

Apart from his art, Truffaut was reluctant to reveal about his personal life. Although it is known that he was sent to a reformatory before leaving school at the age of 14 to work in a factory. His interest in the cinema, however, brought him to the attention of the critic André Bazin, who associated him Cahiers du Cinema. Truffaut asserted himself as the most ardent critic of the contemporary French cinema, which he considered stale and conventional. He advocated a cinema that would allow the director to write dialogue, invent stories, and, further produce a film as an artistic whole in his own style, referring to as author. Thus, he became influential in the cinema world before he could actually make a film. He deserted from his military service, being committed to various prisons until he was able to resume his journalistic career and, eventually, put his ideas into creative practice. Again like Doinel in *Domicile conjugale* (1970; *Bed and Board*), he married and became the father of two daughters. His films were very autobiographical as can be seen in the leading characters in his films like Baisers volés (1969; Stolen Kisses) and in the film of Doinel series.

4.7.3 JEAN LUC GODARD

Jean-Luc Godard was born on December 3, 1930. He was a French-Swiss film director whosename is prominently taken with the new wave group in France during the late 1950s and 60s. His higher education consisted of study for a degree in ethnology at the University of Paris, interminable student cafe conversations, and a labour job on a dam. All these events inspired his first short film, *Operation Beton* (1954; *Operation Concrete*).

Godard's first feature film, *A bout de souffle* (1959; *Breathless*), which was produced by Francois Truffaut, his colleague on the journal *Cahiers du cinema,* won the Jean Vigo Prize. It began a long series of features which were celebrated for the often drastic nonchalance of Godard's improvisatory filmmaking procedures. *Breathless* was shot without a script. Godard used to sketch the dialogue overnight and revised it in between and during rehearsals. In later films he even resorted to speaking the characters' replies to the actors from behind the camera during the takes. Thus, he used improvisatory techniques sometimes to observe reality, sometimes to impose his own vision, and often to inter-relate the two so as to create a strangely abstract effect.

For some years, Godard's work showed an increasingly desperate obsession with themes of fickleness (both male and female), indignity, caprice, and the impossibility of distinguishing a meaningful reality from the pretention perpetrated by others. This pretention can be reflected by one's own mind, by ideology, and by art. Godard used the face of the actress who was then his wife, Anna Karina, as a sphinx like icon representing this existential duplicity in several films. Notable one is *Le Petit Soldat* (1960; *The Little Soldier*), an ironically flippant tragedy about torture and counter-torture. Another film, *Vivre sa vie* (1962; *My Life to Live*) is a study of a young Parisian prostitute, used, with ironical solipsism, pastiches of documentary form and clinical jargon. Godard's 1963 film *Le Mépris* (*Contempt*), based on a story by the Italian novelist Alberto Moravia, marked his only venture into orthodox and comparatively expensive filmmaking. Afterwards he maintained an almost unique position as an absolute, independent creator, using extraordinarily cheap alfresco production methods and enjoying repeated success on the international "art cinema" circuit. On the strength of *Pierrot le fou* (1965; "Pierrot the Madman"), he was asked to direct which he refused what was to be an immensely successful American film, *Bonnie and Clyde*.

4.8: Unit Summary

Cinema is just not limited as a medium of entertainment. It serves a wider purpose of showcasing general life and problems to the world. The Neo Realistic Cinema has put forward the power of the silver screen. The introduction of Montage and Mise-en-scene highlighted the art of editing in cinema and putting elements in the frame to produce a meaningful frame/shot. Further the contributions of Eisenstein, De Sica, Pudovkin, Andre Bazin, Francois Truffaut was discussed. They laid strong foundation stone for the art of story-telling by not only practicing an idea but theorizing it too. This was discussed along with the reference to work of these stalwarts. Learners we also referred to the montage and its types. Further we distinguished it with mise-en-scene. Overall we have discussed five film movements: Realism, Neo-realism, Neo-Classicism, Soviet School of Film making and French New Wave.

4.9: Check Your Progress

1. Discuss about the French New Wave in Cinema.

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2. What is mise-en-scene?

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3. What is Montage theory?

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4.9: Resources

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