

## **Semiotics study for cinematic lighting**

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### **Abstract**

There are three international languages: mathematics, music and cinema. Cinema hasn't been immunized against being attracted to the lingual and linguistic models. The concept of film language was already present in the writings of some early theorists of the cinema. With the advent of structuralism and semiology in the 1960s, the concept of film language was deeply explored by theorists, so the concept of film semiology was arising which emphasized that the language of the film was not like any other literary languages, but is a special type of language, which uses many codes to form a structure and rules of the movie. These studies dealt with the language of the film as a single block (only a few of which dealt with the lighting element), although the film codes are loaded on its audio-visual elements as independent units. This poses the problem of the research; that relies in the problematic of linguistic of the cinematic lighting as an independent film unit. Is cinematic lighting a language or a language system? And is the concept of linguistic sign can be applied to it? and what is the relation between the signifier and the signified? Does it lack the equivalent of the arbitrary linguistic sign, denotation and connotation? The research aim is: To study the extent of how linguistic cinematic lighting can be. The research presents a hypothesis: that cinematic lighting is linguistic. The importance of the research is; if this hypothesis is correct it puts lighting within the rank of the universal languages that can be understood in different cultures. The research follows the descriptive and analytical approach in presenting and analyzing the content of lighting in films.

### **Key words:**

lighting semiology- lighting language - film language – lighting iconic –lighting symbolic– lighting indexical- signs in lighting.

### **Introduction**

Semiology or semiotics are terms that are synonyms and were created for one science which is the science of signs. It's common that European and Swiss intellectuals use the term Semiology when they study signs, but the north American intellectuals use the term semiotics which is the model referred to the philosopher Charles Sanders Peirce. As there is absolutely no difference between the 2 terms, the researcher thinks that both terms should be unified to the term semiology to express both terms (semiology and semiotics).

Semiology is an entrance to study the nature of the movie, studies are around how arbitrary signs of the regular language can meet with motivated and iconic signs in cinema. But such studies never dealt with lighting as an independent and unique unit that can carry significances. May be that was due to studies used to handle movie as one unit that carry one message without pointing to the value of its elements or its various vocabularies except for editing, which played an important role in the history of development of cinema, that's why it was the most prominent vocab at most of cinematic studies. Cinematography with all its

elements took quiet a long time to convert into a film vocab that carries a meaning or collection of meanings. That was the first problem that was facing cinematography in semiology studies.

Most cinematic studies dealt with cinematography as an iconic sign, the point of view was that cinematography is about recording image through light reflected from the subject that was filmed whether that filming was chemical through negative film or digital with modern cameras. That was the second problem that was facing the idea of dealing with cinematic lighting as a language. In fact, it was the same problem that faced the cinematic movie as a whole (1).

When we talk about cinematography we address lighting and color. The research paper analyzes the vocab of cinematic lighting and the range of its linguistic and capability of carrying meanings and significances from semiotic entrance.

In order to study lighting you have to check it through the entire process of film production. The relation between light and film is unique and can be followed through the entire production of the film, as light appears clearly through the elements of the communication process. The process that starts with the birth of the first image through filming and recording it, and pass through the production phase where the creativity of director of cinematography shows, and it is trapped inside his mind till the phase of the actual execution during filming. That is considered the first phase when light transfers from its chemical and physical function to its technical function carrying the intellect of director of cinematography who works as well to realize a general vision of the movie. Then comes the 3<sup>rd</sup> phase which is postproduction phase before display of the movie at theaters, when processing the additional treatments in lighting and color of the movie. The final stage is show time to the audience when the message is decoded and received by the audience mind. Following the previous phases, it shows clearly that lighting is a visual mean of communication, elements of primary communication can be applied to it as it is a direct participant in image recording (sender and message carrier to various means of resending during the movie display on the big screen (the message), then sending the final product to the viewer during the movie show (the receiver) as mental perceptions that are formed inside the audience mind based on the concepts included inside the lighting sentences of the film.

If we are about to do a semiotic study of lighting, we have to study signs and codes inside it. As if we learn signs, codes, letters and words of a language while attempting to read a literature text at any language. So we need to learn how to understand signs and codes within cinematic lighting to be able to analyze, read and follow them inside a movie in order to establish a concept for lighting semiology. By submitting cinematic lighting to semiotic analysis, we can determine whether it is linguistic or not. Semiotic analysis will be applied on nature of signs, concepts of denotation and connotation on lighting, to find out if there is a specific coordination within lighting that allows it to be studied as a language or not?

### **1- Nature of sign in cinematic lighting:**

A sign is something that replaces another thing and it is used to transfer information, say something, or point at certain thing that a person knows and want to share it with others (1). sign according to Saussure has arbitrary nature, the relation between signifier and signified cannot be rationally or mentally justified. There is no actual relation between the word of tree

and the mental image of the tree that are formed inside our minds as the word is mentioned (read or heard). That link is customary, resulted from a historical sum of describing that thing which is grown from land and has branches that carry green leaves. From the era of pre-birth of language till the appearance of language that called it tree throughout ages till the current moment. That is the principal that lingual range relies on with the nature of the relation, but that range isn't just about language but it includes many forms of expression that human use to deliver his experience or express his feelings, etc. that arbitrary sign varies in how random it is, there is the symbolic sign that represents the maximum arbitrary relation between the signifier and the signified. Iconic sign that shows the sensually realized similarity between the signifier and the signified then the indexical sign that shows the minimum level of arbitration. In order to study sign in cinematic lighting we stand against the first question; does cinematic lighting has signified and signifier? Sign requires signified and signifier as inseparable 2 faces of the same paper, that one can't appear without the other. Indeed, lighting is a sign where there is signified and signifier. Light is the signifier and the meaning at post production phase is the signified. The lighting unit is the signifier and the visual effect is the signified (that carry the meaning) through the preproduction phase. The 3 relations of arbitration between signified and signifier are applied to it. Applying semiotic analysis during this research paper on lighting within movie scene through the process of film production, **will enable us to reach the various forms of sign through cinema lighting as the following:**

#### **1-1- Iconic and cinematic lighting**

The problem of realism of photographic photo is one of the main theoretical issues that face cinema critics. The recorded reality of image on the film is as a result of chemical reactions and physical theories which is setting a trap of lighting reality for them, so they deal with it as physical and chemical scanner and recorder of reality. The truth is if we study the lowest level of photographic images that carry meanings like personal photos, we will find that we can't deal with them as if they are just reality scanner as they aren't reality itself. For example, how can you see lighting on the photographed face as a scanner for lighting on the face in reality. Lighting in reality has temperature that can be felt during hot days but photographed lighting has no heat. A photo of the late artist Ahmed Zaki doesn't represent Ahmed Zaki himself. Eco talked about that in his criticizing writings where he harshly criticized the concept of iconic signs have same qualities as the meant ones. People in photos aren't made of skin and bones so he sees that the similarity results from similar cognitive responses. We cognitively respond to Ahmed Zaki photo as if we see him for real. This could be explained as reality coding in the shape of iconic signs that are cognitively reproduced inside the mind. So we think that reality is what we see with our eyes and interpreted inside our minds, we prefer that over the fact that it is encrypted from it.

Lighting within a photo is capable of totally deceiving us, it even creates a feeling of heat and high temperature. Narrowing or expanding spaces, distances, approaching, manifesting, dimensions, specifying and separating among levels. In addition to emotions and psychological states that are being transferred to audience, most importantly adding a feeling of reality of persons on the screen. Especially when adding the element of sound and motion that characterize cinema and differentiate it from fixed photographic images. Lighting is able to lie as cinema does to imitate reality in order to represent it to us till we think it is an actual reality.

It represents a cinematic reality as in the movie "Avatar" that we watch while thinking that this is the true lighting of that world, but the fact that it is lighting which was fully created to imitate what we think is real. In recording it on a digital film, it is still not a copy of the reality that has been filmed, it is a remaking of the reality. That's when creativity appears in handling and filming a non-stylistic reality in a way that creates a stylistic outcome. For example; If we handle the lighting triangle on the face of one of the actors at daylight, that doesn't mean necessarily that the lighting angle coming from the sun at the moment of filming is an inclined angle with 45 degrees for the face with the same level of lighting that causes this triangle to be that clear and sharp. There is the process of creation and creativity- using lighting tools- for an aesthetical imagination of the shape of lighting at that moment of recording of the cinematic image on the face of the actor. That process imposes its presence, and it is what actually recorded on the film no matter what the actual reality of the lighting on the filming site. Let's explain another side of the iconic signs in lighting where there is complete darkness in a street except for lighting coming from one lighting unit at the street, just by showing it, it's no longer represent that specific street which has been filmed, even the lighting no longer means that direct concept of filming a dark street at night, that lighting distribution carries a sign of danger and mystery. Watching darkness falls that way on the screen isn't linked to the audience mind just as the direct idea of "street at night" not that simple, instead it is linked with situations that audience have been through and terrified them, while walking down such streets at night, which news are full of tales about them and accidents that happened inside them. That doesn't mean that this form of lighting is meaningless to the first direct state but it has a clear different meaning when this kind of lighting comes with the dramatic plot. Realization at that point is considered a way of expressing the impressions, as when we see this (which represents reality) and that (which represents that reality in cinematic image) so "this" is a total different idea from "that" though impressions might be the same. This concept clearly appears at lighting of close up shots. cinematographers are used to deal with them as a solo artistic portrait, that doesn't connect them to reality of lighting and allow them to exit from the general shape of general lighting distribution of the scene, of course; without breaching the general character of it.

That will get us closer to Von Sternberg concept about lighting as he thinks that "cinema at light, not the light of natural world but in the art of painting, the film director has to create his own images not by mimicking mother nature, but by imposing his own style and explanation, in order for things to look real" (2).

Cinema lighting isn't about transferring reality but it is the recreation of reality even during filming with realistic lighting at the filming site (day/night-internal/external) without using lighting units, as the process itself of recording on the cinematic medium (film or digital) makes that recording isn't a literal imitation, due to the nature of the medium that is defiantly different than human eye in seeing and realizing reality. That technical process is a trial to record reality in the best possible ways, as in transferring the film and displaying it. The nature of reality changes and it is finally showed as the best recording of it, but indeed it's not it. Cinema in the intuitive truth "lies" but the iconic nature of cinematic sign shows the "pure" truth of the possible, as if it says "that's possible as you can see". Lighting as one of the most important code carriers of the movie "lies" as well and appears at cinematic scene as if it tells the audience that what he sees from shape and style of lighting distribution is rational and

real, while actually it's not real. Lighting methods dramatically differ in sci. fi. Movies, romantic movies, horror movies and comedy which isn't reality for sure. The states we pass through at our daily life, lighting doesn't change through them according to our reactions and circumstances. But what could possibly change is our realization of an event with its details that are connected with the shape, level and type of lighting. What happens is that the sensual memory (at some cases according to the personality) records our impressions and not reality itself. Shadow is a normal result of the light falling and when we mention the word "lighting" we mean that lighting unit that light comes through it to form areas of light/shades/darkness. Shades as well aren't a pure icon, long shades as in photo (1-1-1) are the dominant element on the bigger area of the cadre so it has become the hero of the scene not just a spontaneous recording of light falls on their bodies.



**Photo (1-1-1-)**

**Shades resulting from back lighting**

## **2-1- Symbolic in cinematic lighting:**

Symbol is a sign that is related to something that it represents through a pure arbitrary or customary relation where the specifier isn't similar to the specified, that it becomes necessary to learn that relation, it's totally an arbitrary relation that depends on the historical, cultural behavior and custom that is known and agreed on inside a society.

Metz was so hostile at the attempt of considering cinema as a symbolic operation. We notice while production of horror movie for instance that the common style in lighting is low level lighting and there is no true relation between specifier (low level of lighting) and specified that is resulted from specifier inside the mind of the audience (terror and fear) except for that customary relation that was formed a long time by linking moments of fear and terror to darkness, as there is no culture on earth that is free from such stories and tales that link night and darkness to horror and fear. Tales of "Al Nadaha" "The Caller" in the Egyptian heritage were always connected to night. Black cats that move at night and soul manifestation through them that was the reason we aren't allowed to hit them at night. Vampires in the European culture and their appearance only at night as they burn to death during daylight. Cinematography directors usually use such codes that have been created through history in horror and thriller movies. Once the audience watch that type of lighting, they retrieve it from their memory and predict the nature of the scene or the movie and start to classify it as in

photos (1-2-1) A or B) A- light romance/ B- horror movie. Of course lighting doesn't work alone isolated from the rest of the elements of the movie.



Photo (1-2-1)

Photo (A) the lighting in a scene from the romantic movie (La La La Land).

Photo (B) a scene from the horror movie (The Ring).

There is another form where symbolic sign appears clearly in lighting, as there is no relation between specifier and specified when the target is to add a meaning that is related to hidden emotions or events within the movie drama as the viewer can automatically translate the scenes to meanings that aren't included in the dialogue but lighting reveals and announces them.

As appears in the lighting of scenes from the movie Twilight Zone. Photo (2-2-1) there is no causative relation between lighting and the obvious source of light in the scene. Hora the director of cinematography meant not to respect the light source. Multiple shades were intersected through the whole cadre with no justification. The 2 ladies were walking surrounded by intersected shades. Yet the lighting succeeded in giving strong impression to the audience that relied on its symbolism to give a sense of danger through an imaginary, disturbed world of lighting.



Photo (2-2-1)

A Scene from the movie Twilight Zone where director of cinematography Hora meant not to respect the light source

### 1-3 Indexical and cinematic lighting:

Indexical is signals that have reasoning and connected to what they refer to. They are characterized by the least degree of arbitration. Many point of views consider that the relation (chemical-light /digital-light) that is done through the phase of filming and recording image on a medium (film/digital) is an indexical sign. Due to the nature of similarity of film image and the causative connection (chemical-light /digital-light) between the show and the actual filming location. As they think that the image is similar to the subjects it represents. Such

similarity is due to the images were produced under circumstances that made them similar in their details with the nature. This way it balances the signs that are connected to materialistic relations, meaning the indexical type.

Of course lighting at one of its sides carries the indexical characteristic from transferring reality (final reality that was created by director of cinematography) to the film medium and recording it but they are still somehow encrypted.

Shades of Caravaggio in the movie Caravaggio. Lighting in that movie respected the light source and recorded on the film medium, and that was a signal to the light source. Lighting appeared on her face with its level, color, movement and angle on the face points to the presence of candle that was the light source, though it wasn't shown inside the cadre as the lighting angle, level and color. Photo (1-3-1) but it's not just indexical but it's also the visual imagination of unknown areas inside the mind, of dark unconscious areas and to mimic that style Storaro chose to draw with light to make bodies stand out from the dark to differentiate mystery from conscious cognition.



Photo (1-3-1)

A scene from the movie Caravaggio, where the light source (candle) was respected in the lighting style. The side lighting of the candle created areas of light and darkness that added to the significances of the scene.

In the movie (Cairo 30) bull horns appear above Mahgoub's head. They are actual horns were hanged on the wall but shades resulted from lighting doubled their numbers to confirm the significant, required meaning. The presence of shades is a normal thing due to light falling on the hanged horns. But creativity lies in the choice of the director of cinematography Waheed Hamed and the movie director Waheed Fareed to keep and confirm their presence instead of moving them away. That decision caused the appearance of the horns inside the scene within the dialogue with a significant indication of the pimp husband in the Egyptian folk heritage. Those shades directed the audience eyes towards that indexical sign by the appearance of the horns that point at the bull's horns and symbolism through the symbolic meaning of those horns.

### Synopsis:

From the previous analysis we could extract that there are mental meanings which are created inside the mind, that have nothing to do directly with the lighting used inside the film but they are related to its significances that director of cinematography deliberately creates them inside the audience minds, then executed it by using lighting units, forming visual cinematic

sentences that appear through sequences of the scene. Hence we reach the conclusion that these meanings varied from the ones with symbolic part is clearly dominant, arbitrary and distinguished. To the signs with indexical side is more dominant, and other signs with iconic side is the dominant part. Among all of those participants there is a big degree of intervention and common existence of the various sides without any clear or previous domination to any of them. That's why it is allowed to say that lighting uses 3 types of signs based on Pierce classification which are iconic, index and symbol.

## 2- Cinematic codes and cinematic lighting:

Code is a basic thing when it comes to semiotic study. Roland Barthes mentioned that "the meaning of sign depends on the code where it belongs". Codes give a frame through it, signs get their meaning". In fact, we can't take for granted anything about the state of sign unless we create it through code.(3)

For instance: bottom lighting is used in movies to indicate the villain personality, overhead lighting indicates angelic personality. Which allow viewer to indicate which is which through the whole time of the movie, just by seeing lighting during the dramatic event.

That allows us to create a switch among specifier (lighting/darkness) and specified (good/villain) the 2 types of lightings are referred to (as they call for the existing lighting) as well as the 2 characters (as the man in photo is either good or bad). It's one side of the struggle, which happens at some cinematic elements, between code and message. That form of lighting distribution appears through many scenes of the movie "**The Witch**". Overhead lighting that adds angelic, innocent and purity qualities to the main character as she is in the position of suspicion during the whole movie, lighting confirms she is innocent through the code. But the pale, unsaturated cloth and blue lighting add an atmosphere of fear and horror that surrounds the family. That lighting style is dominant till the end of the movie when she gets a bottom lighting when she surrenders to the devil and the color of the lighting turns red. (Photo 1-2) which matches the escalation of dramatic event, and the moment when she sells herself to the devil.



(photo1-2)

Shows the difference in the used technique and color of lighting at 2 different scenes at the same movie according to the progress of the character.

That type of codes is a traditional type that audience has learned either with (their conscious or subconscious) from the repeated views of lighting at movies. He developed an experience of decoding film codes which lighting is considered one of them. That's what director of



cinematography relies on, as he is totally aware of the audience capability to decode his codes that are loaded within the lighting tissue. Creative director of cinematography has to avoid traditional codes as in the movie **Seven** when the officers arrived to the criminal apartment, suddenly a man appears at the end of the corridor with back lighting coming from the window (it wasn't actually there at the filming site, it was created by the director of cinematography) that lighting hid the man completely (Silhouettes) which allowed the viewer to realize that this was the guy they were looking for through the entire movie. Lighting led the viewer to determine the criminal without actually revealing his real character to enhance the mystery and keep it going, and the audience realized that, and understood it through decoding of lighting codes and translating them into the intended purpose. The same technique was repeated at the chase scene in such a creative way of a moving portrait. (photo2-2).



Photo (2-2)

The 2 photos show the creative use for lighting codes, and the use of (Silhouettes) technique that hid the criminal features and didn't reveal him.

Sometimes director of cinematography intends to break the usual codes that audience are familiar with and have known for their entire life, as in darkness at horror movies or high level lighting at romantic movies and reaches the same results. As in the movie (The exorcism of Emily Rose) photo (3-2) director of cinematography meant to film at broad day light instead of the usual night, that way he broke the traditional code, when deliberately breaks the code you back it up with extra strength as if he tells the viewer "I can horrify you at daylight as well".



Photo3-2

Shows the use of daylight in a scene that audience are used to watch at night which is considered a break for the usual code that audience are costumed to.

Theorists explained the concept of secondary code in the movie. With each specific cinematic code, a sub code is being introduced to give specific uses of the general code. By applying the same concept on lighting, we can say that expressional lighting for example forms lighting sub codes, so technique is considered a sub code that differentiates each director of

cinematography from the other. All movies have to be lighted but not all movies have to be lighted with **Storaro's** technique at the movie "**The Last Emperor**". Where his technique is clearly shown at each scene, through sequences and the entire movie. Or **Kamal Karim's** technique at the movie "**The thief and the dogs**". Or **Abd Al-Aziz Fahmy's** technique at the movie "**My wife, the dog and the impossible**", where each one of them used specific codes that carry the unique style of each one of them.

The appearance and disappearance of sub-codes fit the possibilities of the professional context, in other words the historically developed collections of the possible alternatives for filmmakers, and the collection of substitutions with the least and highest possibility within the professional context. So the given style to create a movie at any historical moment classifies some alternative substitutions as being more or less possible (4). For example, the movie "**Beginning and end**" by **Kamal Kareem**, the lighting technique that was used as light/dark during the scene of **Hassanin** and his sister coming out of jail, where moving screens in front of the light source intersect to create moments of light and darkness that appear intermittent and consecutive. That form of light/darkness on **Hassanin's** face, symbolize the interference of thoughts and questions weighing his mind and there was no reasoning relation between the specifier (screen and light source) and the specifier. The relation between them is arbitrary and customary depends on the audience will mentally explain that sequence of light/dark and feel what was **Hassanin** feeling from the struggle of thoughts and questions running through his head. The use of that technique light/dark isn't likely as an alternative in a movie at the 20<sup>th</sup> century but it was most likely in the sixties.

### **Denotation and Connotation in the semiotic of the cinematic lighting:**

The words denotation and connotation are described by levels of the meaning. First level of production of the meaning (first meaning of the sign) which is specific for denotation, at that level there is a sign made of specifier and specified. While connotation represents the second level of production of the meaning (second meaning of the sign) which uses the denotative sign (with its specifier and specified) that way the denotative sign is giving an additional significance. That point of view shows that connotation is a sign that emerges from the significance of a denotative sign (5). in other meaning; denotation points at the relation between specified and specifier, dealing with the concept of denotation as if it points at the clear and obvious meaning of a sign.

As in the movie "**The Last Emperor**", both **denotation and connotation** are clearly shown during that creative work on the level of shot, scene and sequence. As it was the result of collecting denotation (techniques) and denotative significances (inside the shot) to create additional significances (during the next scene or sequence). For instance, when **Puyi** the kid was taken to the forbidden city where he was introduced to the dying emperor in a scene covered with shades of orange and soft lighting. The union of both the denotative significance of the color and the denotative significance of the lighting during that scene, an additional

connotation is produced that carries significance of them both expressing family safety and warmth. That lighting is linked to all the coming scenes that represent childhood and youth of **Puyi**. In the scene where **Puyi** and his monitor first meet. **Storaro** uses light from the sun as an indication of the new knowledge he is about to get, when **Puyi** has those fake dreams about becoming an emperor, **Storaro** uses his lighting to create huge shades that threaten with conquering light and the emperor, then during the scenes at the prison, there was the struggle between **Puyi** and his shadow as a symbol for his inner struggle. Then the harmony between light and shadow finally at the end. All those connotations unite together with their denotation at the end to tell the audience about the entire life of the emperor in a story that was told by light. The repeated use of a specific technique throughout the sequence of scenes is connecting the use of technique significance (denotation) with the connotation which proves the required meaning to be delivered to the audience. Like repeating the use of orange gelatin to get the orange color that kept on showing at the scenes of the warm life that **Puyi** lived at the forbidden city. That way the color is linked to its meaning inside the viewer even if it was subconsciously. The use of low-key lighting during the filming of the movie” **The God Father II**”, could be explained in the beginning as just a realistic image from the location, but its continuous appearance build connotations that can be read by various ways, like locking him inside his character, his past, darkness and the evil part of his personality and his actions. etc. As soon as the connotation are being founded, all images confirm it and become an individual example of it.

As regarding the dark (whether it was a shade of bodies resulted from light falling on them or the absence of lighting at some parts of the scene) the main feature of the image shown on the screen is the interaction between light and dark areas, that contiguity is specifying shapes. The foundation of that contrast located at the reality that have been filmed. In the real 3 dimensional world. Interaction of light and dark areas forms secondary significances that aren't noticed most of the time as it is not necessary to realize those relations during the daily regular function of the visual cognition, while during the 2 dimensional world of the film, light/dark relation is a primary signifier and it is clearly noticed.

At the movie” **Bigger Than Life**” when the father under the effect of corticosteroids turned into a monster and forced his son to watch his shadow that was reflecting on the wall, it was giant comparing to the size of the mother standing at the house hall and unable to stand against the tyranny of the father. In that example light indicates the strong relation exists through the sequence on solo image, on the level of connotation, light with all its relation with the filmed subject becomes the signifier or the connotator while signified of the connotation are forming the big issues (ideology, culture, particularism, etc.) which could be signified through the lighting of the filmed object (6). At the movie “**Black Swan**”, the lighting was used with a sharp high angle (denotation) without revealing the lighting source at the opening scene. He created an intense lighting spot that was clear inside the dark (denotative specified) which created a sharp contrast between light and dark that caused to focus on **Nina** and

isolated her from the theatrical reality of décor, audience, etc. photo (1-3). Inside this there is (the specified of the connotation) of the intensity of the struggle which that dancer is about to go through during the movie. With what surrounds us of darkness, struggle and unknown which are indeed what she was suffering from inside herself. Out of the darkness came the dancer who represents evil at the scene so darkness is symbolic at this scene.



(photo1-3)

Contrast between areas of lighting and shadow in a scene from the movie black swan.

As in the movie “**War of the Worlds**” that fight between light and dark has to be there, that intensity. Though light is the source of safety but it was also the source of terror, people beneath that light are trapped with death and fear whether in light or at dark, so siege, chase and terror become (signified of the connotation). As shown in photo 2-3.



(photo2-3)

One of the most popular scenes which the concept of denotation and connotation is clearly shown in the movie” **Cairo 30,** **Mahgoub Abd Al- Dayem** is connected throughout the entire movie with the word “toz” which means “whatever” this word was like a crown of clay over his empty head”. The director **Salah Abo Seif** expressed that crown with bull’s horns above **Mahgoub**’s head. Horns have clear signification of pimp husband in the Egyptian folk. Not just that, the unique lighting of **Waheed Hamed** that fell on the horns, created shadows as shown in photo 3-3 that add to and confirm the same indication with emptying the shot from any other details to direct audience attention towards this symbolic sign of the presence of horns, that points at bull’s horns and symbolism inside the symbolic meaning of those horns.



(Photo 3-3) a shot from the movie **Cairo 30** shows shadows on the wall to confirm the significance of the presence of horns over Mahgoub's head.

### 3- Paradigmatic and syntagmatic categories:

Paradigmatic and syntagmatic are referred to as axis where the horizontal axis is the syntagma (synthetic) and the vertical axis is the paradigm (substitution). Syntagma level is the sum of all this and that as in the sentence "the man slept" while paradigm is the choice between this and that, for example substituting the last word of the sentence to be "the man cried or the man died" as moving from one image to the other during the movie, speaks to the audience and a connection happens. On the level of lighting there is an appearance of both Paradigmatic and syntagmatic

Before the process of filming through the choice of director of cinematography among lighting units individually, their position, angle, strength and color. All those choices are related to the paradigmatic axis, but all lighting units beside each other that is related to syntagmatic axis, also lighting during the show is a syntagmatic axis through the presence of lighting next to each other within the successive shots which carry connotation to the viewer.

At the movie "**It's a Mess**" director of cinematography is **Ramsis Marzouk**. It doesn't have any technique (denotation) within itself, for example; lighting unit 2k in the scene of the prison has no meaning within itself. But combining it with other lighting units at the same shot to create a general trait of the shot, that now has a meaning. When combining that shot with the next shots within the sequence, the whole sequence gains a general meaning which is **Hatem** cruelty, prison cruelty and isolation of all prisoners inside it. The work of the director of cinematography is within syntagmatic axis regarding the process of combining techniques.



(Photo 1-4)

A shot from the prison scene in the movie "It's a mess".

Choosing a specific technique among a collection of techniques to produce a certain shot that is considered paradigmatic axis. **Ramsis** didn't choose the use of a lighting unit "during the sequence inside **Hatem and Nour** apartment" to lighten up **Hatem**, instead he used a lamp of 500w. That choice among 2 techniques is related to paradigmatic axis.

**Storaro** drew a portrait that tells a condensed, syntagmatic tale about filming color shades throughout the whole movie "**The Last Emperor**" where red blood at the beginning creates a long, artistic flash back of **Puyi** life, then transfer from red (birth and again during wedding night) +orange (childhood)+yellow (reveal followers of the emperor) + green (the strange car) + blue (inside the taxi) + dark blue to purplish blue with tinge of grey (the mansion) +purple

(the movie theatre) + collecting snow during “the graduation party” at the end, all colors are within the white color. Which is the reunion of all color stages of **Puyi**'s life and it carried the core of unifying feelings, knowledge and all colors. When he leaves prison to become gardener and he sees the previous chief of the prison when he was humiliated, all that was presented by **Storaro** in white color. Harmony among the light and all shades are all connotations that include his stability at last and the movie ends by his coming back to visit the forbidden city. That scene was filmed as it included all spectrum colors.

### **Synopsis:**

Lighting shows flexibility and high visual eloquence in its ability to build characters, their external and internal interactions as it shortens distances between audience and meaning and talk to them in a direct, sensual way. There is no need to learn a specific language to understand its significances and decoding it.

From all the previous and by applying semiotic analysis we can tell that:

- Lighting has eloquent abilities in expressing psychological states of characters in the movie and their struggles, the incidences they go through by using lighting symbolism and that is in the hand of creative director of cinematography.
- Lighting represents a direct, sensual experience, provokes the witness perceptions in a direct way.
- Lighting is a code and using it inside the movie by director of cinematography who creates secondary codes that distinguish each director of cinematography from the other in his lighting technique.
- Lighting is subjected to the concept of denotative specified and connotator specified.
- Lighting is subjected to the concept of Paradigmatic and syntagmatic.
- Lighting is subjected to the concept of denotation and connotation.

After comparing lighting semiology with linguistic model from denotation and connotation, arbitrary sign, Paradigmatic and syntagmatic axis. We can tell that lighting isn't a language system but it is a language that is as far as it can be from pronounced language. It's the language of art. It's an artistic language that is different than spoken language, but is still a language. It is an international language that doesn't need you to understand or learn letters or vocabularies, it can be understood at any place of the world by any kind of audience. That is through its historical and artistic progress too. It is a language that could be applied and used at work pieces that create dialogue with audience all around the world, it is a 2 sides weapon that could be used in serving good meanings and concepts, which invites to global concepts of peace and acceptance of others, or could be used to serve films and works that are of no value and can destroy nations.

**The research results:**

- Cinematic lighting responded to semiotic analysis with all its various elements, so cinematic lighting is a language, meaning that it is considered a technical unit that works on activating feelings that are being understood with cognitive practices.
- Cinematic lighting can't be handled from just the side of physical lighting; it interferes with all aspects of communication process, starting with current subject that is being filmed till the final release of the movie. Lighting as an artistic language is a way of communication that can be coded and carries a set of messages with significances.
- Codes of Cinematic lighting are full of meaning starting with exposure and choice of light intensity, sharp or soft and level of contrast, shades and color of the light. Semiotic studies allow a better realization of the relation between the used technique in lighting and its significance.

**References:**

- 1- Pärn, Katre, Language of Cinema and Semiotic Modelling, [https://www.researchgate.net/publication/272536759\\_Language\\_of\\_Cinema\\_and\\_Semiotic\\_Modelling](https://www.researchgate.net/publication/272536759_Language_of_Cinema_and_Semiotic_Modelling), 2012.
- 2- إيكو، أمبرتو ، العلامة" تحليل المفهوم وتاريخه، ترجمة: سعيد بركراد، بيروت: المركز الثقافي العربي، 2007.  
Eco, Umberto,"al3alamah"ta7aleel almafhoom wa tari5oh, targamah: Saiid Binkrad, Bairoot, almarkaz althakafi al3arabi , 2008.
- 3- Wollen, Peter, Signs and Meaning in the Cinema, London: Martin Secker & Warburg Limited, 1969.
- 4- Chandler, Daniel, The Basics, semiotics, London: Routledge press, 2002.
- 5- Stam, Robert & Burgoyne, Robert & Flitterman-Lewis, Sandy, New Vocabularies in Film Semiotics, London: Routledge press, 1992.
- 6- Chandler, Daniel, The Basics, semiotics, London: Routledge press, 2002.
- 7- A. Russell, Sharon, Semiotics and Lighting "A Study of Six Modern French Cameramen " , USA: UMI Research Press, Michigan, 1981.