

# ILLUMINATING TRANSIT: CINEMATIC LIGHTING AS A TOOL FOR URBAN MOBILITY AND SOCIAL JUSTICE

Mr. Sanjay D. Chandaliya<sup>1</sup> - Assistant Professor

Aditya College of Art, Architecture and Design, Mumbai, India

Dr. Hitesh Sharma<sup>2</sup> - Assistant Professor

Department of Design, Banasthali Vidyapith, Rajasthan

## ABSTRACT

*This paper examines the use of artificial lighting, after the techniques of cinema, to improve visual communication in urban transport settings, specifically in Public Places, railway stations, in the use of the Rembrandt lighting method and chiaroscuro historically used in Hindi cinema and how they might help improve poster visibility, emotional impact, and narrative delivery. In deep transit spaces, the lighting has a central role in attention control, human silhouette, and the support of interaction with social and informational messages. The introduction of depth, contrast, and atmosphere through cinematic lighting makes the visual displays of the people more immersive and easily decipherable. The study previews lighting as an agent of social justice, which assures fair visual access to the information among various demographics of commuters. It also outlines benefits to content creators, such as the increased effectiveness and fame of their visual creation. The study reformulates lighting as a communicative tool in the mobility spaces by synthesising the areas of cinematic, fine art, architecture, and urban design. Using qualitative research approaches such as interviews, field observation and visual analysis, the research questions how lighting can enable transit hubs to be more inclusive and socially responsive places.*

**KEYWORDS:** Urban mobility, Portraits, social justice, cinematic lighting, Rembrandt technique, chiaroscuro, public communication, architectural spaces, visual storytelling, Public Spaces.

## INTRODUCTION

Railway stations are urban mobility spaces, and they are very vital areas of the public where millions of people interact with the state of art of the visual communication objects daily. Adverts, information boards, and posters are invaluable tools of guiding, training and influencing commuter behaviour. However, their effectiveness greatly depends on the lighting conditions of the environment that is common in the high-density and high-paced environments. Artificial light used in the cinema adds to the anthropocentric imagery, making facial expressions, emotional undertones, and the messages expressed more expressive. Rembrandt lighting, chiaroscuro and others are techniques that add depth, contrast, and clarity to the social visuals. When applied as a lighting approach in transit surroundings, the strategies draw attention to the observers, and improve transmission of messages to the commuters, thus improving their memory of the message relayed. These can be identified as being in line with the objectives of urban mobility as it makes communication more accessible and responsive. In addition, the right lighting promotes social equity through equitable access and understanding among the various groups of the audience. Posters that are well-lit therefore increase the level of social awareness about issues, safety measures, and stories of the people. In this regard, cinematic lighting falls under the intervention of strategy that enhances humanised, inclusive and effective environment in railway stations.



Figure-1 (Source— These images are concentrated on railway stations and subway stops. Cinematic lighting on portraits is used to demonstrate the emotions of the subjects. The lighting attracts the attention of the viewer and makes it quite clear to give social justice all the people)

## RESEARCH GAP

Although the issue of lighting is thoroughly studied in the framework of both cinematography and architecture, studies that reveal the role of lighting in commuters (railway stations and pedestrian crossing) are still barely heard. Research on public signage mostly focuses on design aesthetics and the dynamics of crowds and therefore, ignores the role of cinematic lighting in contributing to clarity and affective communication. Moreover, the research gap on the effectiveness of lighting in fostering social justice and provision of equitable access to information by different commuter groups is apparent.

## RESEARCH OBJECTIVES

- To examine the role of cinematic artificial lighting methods in enhancing the visibility of posters, expressions of emotion, as well as communicative ability of the visual and informational poster display and advertisement system, in railway stations and other urban mobility areas, including Rembrandt lighting and chiaroscuro.
- To assess how the enhancement of the lighting design within the public transportation settings helps to bolster the social justice by providing equal opportunities to access information, increase the commuter engagement, and assist the inclusion of the visual communication of the diverse urban communities.

## RESEARCH METHODOLOGY

In the current research, the qualitative, descriptive and exploratory approach is used to determine the effect of cinematic artificial lighting on the visual communication of the railway stations and urban mobility situations. The results are collected by means of visual analysis, systematic field observations, photographic reports, and semi-structured interviews of designers, lighting experts, and commuters. The conceptual framework is based on secondary literature. Well-lit and poorly lit posters are

compared in order to determine their clarity and affective appeal. To sample the stations, which have various illumination conditions, purposive sampling strategy is used. The qualitative content analysis is used to assess the quality of lighting, emotional appeal, and clarity of the message and hence make evidence-based suggestions to the designers and urban planners.

### LIMITATIONS OF THE RESEARCH

The research is mainly concentrated in large size train stations hence it may not be relevant to areas such as bus stations, undergrounds, and bicycle paths. Due to the age of the infrastructure, its maintenance, weather conditions, and power glitches, lighting may vary a lot, disrupting the way people see things and the consistency of the data. Environment stuff such as flicker, glare etc can influence what the participants say. Interviews may overlook certain daily routines and the unmentioned components that commuters are concerned with. Besides, the high cost, movie quality lighting cannot easily be implemented in actual installations.

### APPLICATIONS OF THE STUDY IN THE PRESENT SCENARIO

The information can be shared by improving lighting regulations among governments, designers and individuals. The proper choice of color temperature ensures that the things remain readable even during the dark. Analysis tools used in the way we perceive things are used to position and construct messages in the public. Health, safety and community messages are more visible with bright and eye catching lights. With style and usefulness, ordinary travel can be more intriguing and useful.

### ELABORATED RESEARCH OBJECTIVES.

- This paper will examine the application of cinematic lighting in posters, advertisements and information signs in train stations and other urban transport areas. It examines professional lighting styles in film like Rembrandt lighting, chiaroscuro and controlled contrast in railway stations, metro stops, bus stops and pedestrian subways. Due to the fact that people are in a hurry and do not take time to notice posters and signs they might not see or read them. Light is either dim or there is no light at all, therefore, making the face look flat and unreadable, particularly during the early morning in the late night or in areas with unreliably bad power. Cinematic lighting makes them more detailed, natural, and makes people feel like they are part of the faces in posters. Chiaroscuro is used to guide the gaze of the viewer and put emphasis on important information. The methods isolate the primary image and the background where there are lots of people. Good light and shadow help in minimizing the eye strain and there are easier to read and retain the message. It also aids in users in highlighting safety warnings and other notices in a short time. On the whole, consideration of cinematic lighting enhances emotional bonding and the effectiveness of communication of information in transit areas that are occupied.



Figure-2 (Source— In visual art, cinematic lighting is applied to present advertising messages and feelings of characters to particular targets. This renders the posters more significant to the audience. Due to the lighting techniques in the cinema, there is a tremendous impression that develops social justice in the minds of the viewers.)

- To find out how enhanced lighting in transport systems contributes to the cause of social justice, inclusive communication and access to information equally. This objective considers lighting as a social and moral design object rather than a technical or decorative object. Individuals utilizing the public transport encompass seniors, kids, individuals lacking reading, the blind or individuals with low vision, migrant workers and foreign tourists. Bad lighting affects these groups more and they find it difficult to read signs, recognize faces and see warnings. Places are less safe and difficult to access due to low-contrast posters, dim lighting during the night, and dim corridors. People with disabilities can be prevented by glare and deep shadows in viewing vital instructions. Visual messages are clear to all due to better lighting. Good lighting is also known to make people feel secure, relaxed and more self-assured. Inclusive lighting provides all people equal access to health and safety as well as civic information. It exposes social messages to everyone in the society, and not only the youthful and the strong. Put differently, lighting is conducted cautiously to ensure fairness, dignity, and humane visual transport communication.

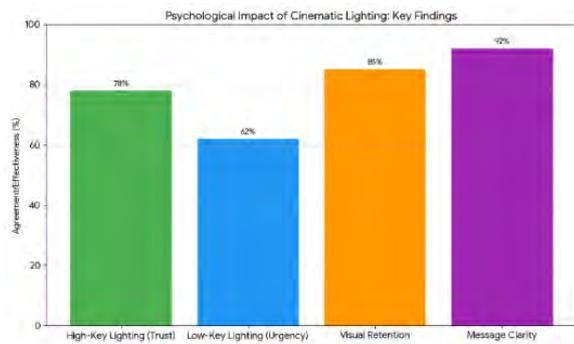
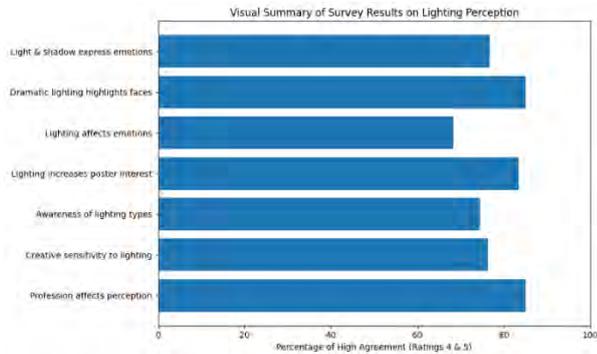


Figure-3 (Source— These images show how communal spaces in architecture are decorated and aesthetical values of beautification are developed with the help of cinematic lighting, and spectators can enjoy the old architecture. The moviemakers use the same effects to create attractive architectural settings that enhance the scene and strengthen the composition of the frame.)

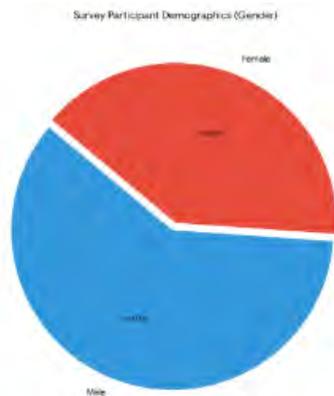
### STATISTICAL INTERPRETATION AND ANALYSIS

According to the statistical data, received as a result of the survey of sixty people, lighting has a great impact on the perception of posters in the post-street and in the mobility space. Most respondents agreed that there is a professional background mediating lighting sensitivity with creative professionals showing a greater level of sensitivity. More than three-quarters stated that proper illumination makes them interested, become emotionally involved and perceive facial expressions. Lighting of high key received nearly seventy-eight percent favorable score on clarity and credibility. Low-key lighting was rated as positive in terms of emotional resonance and urgency with only about sixty two percent of the respondents. Almost eighty five percent of the participants established that the pictorial presentations yielded better results compared to textual information. The comprehension of message received the greatest positive rating, as close to ninety-two percent respondents concurred that the tone

and meaning of any message are determined by lighting. The results show that cinematic lighting is an effective non-verbal communication tool especially to users with low literacy levels. The difference in brightness, contrast and color temperature helped in communicating safety, authority and friendliness without necessarily using a text. All in all, the findings support the idea that lighting can be a functional and psychological design factor that enhances the accessibility, emotional appeal, and



communication in the open areas.



## FINDINGS

It has been found out that posters make more sense and affect people more emotionally when the cinematic artificial lighting is applied in transit spaces. Light images are more attractive to commuters and have higher chances of recalling the message. Lighting also makes it possible to make the people in the posters look dignified and expressive which reinforces the impact of the story. Lastly, increased illumination will aid in making public information more available to every type of commuter, which advocates social justice.

## CONCLUSION

Cinematic lighting is not a thing confined to the art scene but it is an essential tool in ensuring that traveling around the city is made easy and exciting. The use of film-like lighting dropped in Public spaces train, stations helps in making the signs stand out, helps to keep people interested, and introduces everyone. This modification drives social justice, ensuring that all messages of the public are displayed in the same way to everyone. The study demonstrates that improved light will transform subway stations and bus shelters into locations.

## REFERENCES

- Jacobs, Jane (1961). *The Death and Life of Great American Cities*. New York: Random House.
- Tamari, T. (2017). *The phenomenology of architecture: A short introduction to Juhani Pallasmaa*. *Body & society*, 23(1), 91-95.
- Tanizaki, J. I., & Tanizaki, J. (2001). *In praise of shadows (Vol. 24)*. Random House.
- Watts, D. C. (2004). *Evaluating British railway poster advertising: the London & North Eastern Railway between the wars*. *The Journal of Transport History*, 25(2), 23-56.
- Hughes, N., Ryan, B., Hallewell, M., Coad, N., Grant, A., Parrott, N., ... & Thompson, K. (2020). *Identifying new concepts for innovative lighting-based interventions to influence movement and behaviours in train stations*. *Lighting Research & Technology*, 52(8), 976-990.
- Ghadiri, S. T., Pazhouhanfar, M., & Saberi, M. (2025). *Impact of architectural design characteristics of railway stations on travellers' preferences: a digital design method*. *Building Research & Information*, 1-19.
- Jedon, R., Haans, A., & De Kort, Y. (2023). *Proposing a research framework for urban lighting: The alertness, arousal and anxiety triad*. *Lighting Research & Technology*, 55(7-8), 658-668.
- Jedon, R., Haans, A., & de Kort, Y. (2025). *Pedestrians' Alertness and Perceived Environmental Safety Under Non-Uniform Urban Lighting*. *Global Environmental Psychology*, 3, 1-28.