May 2006

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Film Institute in Leicester Square
by
Anne Franco

A Terminal Project Presented to the Faculty of the College of Architecture at the University of Nebraska
In Partial Fulfillment of Requirements for the Degree of Master of Architecture

Major: Architecture
Under the Supervision of Zeynep Kezer, Johan Granberg, Mark Hinchman
Lincoln, Nebraska
May 2006
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my advisors and the faculty who were there from the beginning: Zeynep Kezer, Mark Hinchman, Martin Despang. For their constant and consistent advice and knowledge; their positive and constructive criticism which often left me with refreshed excitement for my project; their passion for design and dedication to students and architecture. Thank you.

my family, especially my mom and Cody. For understanding, accepting and supporting.

my architecture friends. For making the frequent late nights a little more enjoyable, and Alissa for always being there to take notes at my reviews, to hear me rant, to give constructive criticism, and to trade projects for an hour.

my theater professor: Dr. Grange. For introducing me to the world of theater, Marlon Brando, and Film’s technical innovations.

my London contacts and all those who helped me find them. Liz Jenkins and John Greenacombe at English Heritage for all the Leicester Square aerials and site information. Peter Stevens for letting me peruse and use his photographs of the Leicester Square area. Alastair Rudd, Principal Surveyor at the City of Westminster, for all the site information. Thank you.
Introduction

The cinematic experience involves many conventions; from the length of the film and the theater seats’ cushion to the existence of a largely passive audience and the acceptance that the actors are portraying other people.

The development of an architectural thesis project has much in common with the film-making and film-viewing process. There are initial ideas, a final product, a change in directors, key scenes, and vital characters.

This book, the final act of this architecture thesis project, is the documentation process that records the journey of the project; everything from the early concepts to the moment the project’s real potential came to light. By emphasizing the commonalities between architecture and film, specifically in reference to the frame and the fourth wall, the relationship between the two mediums is revealed.
Initial Research and Analysis

The bulk of the first semester of this two semester project was devoted to research; everything from museums and forms of exhibition displays to cinemas and live theater. Through this research I realized what the project really needed to be, not a museum where static displays guide visitors through, but an institute where interaction occurs and life is experienced. This resulted in a phase of researching precedents and developing a program. There are not many film institutes which consist of the same types of spaces included in the proposed program. The precedent research was then fine-tuned for pieces of the program – a cinema and café here, an exhibition space and apartments there. The precedents analyses became studies of programs and the spaces’ relationships, instead of the way in which precedents are usually used – as examples of how something looks or what materials were used.

While the project’s (re)defining was developing, I was searching for site information. Having visited London and my site the previous semester, I found reliable (and extremely helpful) contacts in London at various organizations which deserve the credit for the majority of my site information.

The site selection and analysis, as well as precedent research and analysis are included in this section. Analysis conclusions are also included which detail what was learned from the research and analysis and how that is considered later in the design of the Film Institute.
Centrally located within the city of London, Leicester Square experiences some of the highest foot traffic in the United Kingdom, with nearly 22 million people passing through every year. Though the area’s dense, mixed-use urban fabric includes countless restaurants, coffee shops, offices, apartments, and shops, the Leicester Square area is most visited for its multitude of cinemas. Known as “Theaterland,” Leicester Square itself has cinemas on three of its four sides which allow it to host around 50 film premieres a year.

Despite the abundance of activities taking place, Leicester Square currently serves more as a circulation space than a destination. The city of London wishes to change this by transforming Leicester Square into “the Home of Cinema in the UK.” A number of organizations, such as the Heart of London Business Improvement District, have already initiated this change. The Heart of London BID seeks to improve the area by making it a cleaner and safer place while encouraging new developments within the area to revitalize Leicester Square’s role as the West End’s entertainment center. The Film Institute fits within this larger framework of improvements aimed at revitalizing and restoring this vibrant location in the Heart of London.
Initiating Change: Heart of London Business Improvement District

“The Heart of London will deliver improved cleanliness and security attracting increased footfall and enhanced spending. Working with partners including Westminster City Council, the Heart of London will also contribute vital support to marketing and helping secure additional investment for the area.

Heart of London BID will also bring to life schemes designed to change and enhance the streetscape -- such as the Coventry Street Plan which will make the area a more pleasurable, pedestrian friendly and easy to navigate route.”

http://www.heartoflondonbid.co.uk

Initiating Change: Swiss Center Redo

“Jestico + Whiles earned a combined architecture and interior design appointment for this new build, hotel-led mixed use building on Leicester Square, one of the premier sites of London’s West End.

Accommodating a 240 Key four star hotel, cinemas, casinos, restaurants, bars, and a major retail outlet targeted at a signature life-style brand, the redevelopement proposal has been welcomed by the City of Westminster as a means to significantly regenerate this vital part of London’s West End.”

http://www.jesticowhiles.co.uk/
Heart of London: Leicester Square, in the City of Westminster, is minutes from a plethora of sights and areas in London.
After narrowing my site within London to Leicester Square, this blank wall helped me select a specific site within the area. With its large blank facade, the wall is out of place in so lively an area as Leicester Square. The wall also lacks visual communication with the surrounding architecture.
This is Theaterland. Originally known as “Theaterland” because of the numerous dramatic arts theaters in the area, the name remained when movie theaters came into existence, causing many of the performance theaters to redirect their entertainment focus to film.

From the Square: This panoramic taken from the center of Leicester Square shows not only the south facade of the Film Institute, but also the surrounding area as well.
Existing physical conditions of the site and its surrounding conditions were taken into consideration through a regulating lines study. Elements from which lines originated include adjacent facades and internal edges, such as those defined by the buildings within the same block. A compilation of the prominent regulating lines was formed and used to help define the current composition the Film Institute possesses.
Regulating Elevations: The regulating lines study was not limited to the site in plan. The south and east facades of the block within which the Film Institute sits also were studied using regulating lines. The lines used in these studies were derived from the neighboring buildings. Patterns and main elements in the buildings’ facades were recorded and later used to influence the spatial composition of the Film Institute and its facades.
This project began as a film museum, which sprung from my interest in film. However, a film institute should be more permeable than a museum, with a building and program that would not only attract visitors, but encourage them to engage in a wider range of activities; thus was born the Film Institute in Leicester Square.

A series of existing projects which possess similar programs as this project were selected for analysis. Since there is no building type for this project—a film institute incorporating public elements as well as a residential component—a study of the relationships of each building’s internal spaces was the main area of focus. Methods of analysis include path diagrams (adapted from Bill Hillier’s spatial analysis method) and space adjacency studies. Successful ways of resolving general spatial relationships for this project have been identified and applied in the current architectural composition.

The Institute’s multi-use program encourages film studies, research, and general film appreciation by incorporating institutional, recreational, and residential spaces. The institutional spaces include a film archive, cinema, lecture hall, and classrooms that facilitate film studies and education. Residential spaces include on-site apartments for film student study-abroad programs, visiting film-makers, Institute-sponsored lecture and workshop presenters, and the Institute’s resident director. Recreational spaces include a bookstore and restaurant to entice members of the less film-oriented public to the Film Institute.
Space Adjacency Comparisons

The adjacencies of the main spaces in the Film Institute’s program — cinema, archive, education spaces, exhibition spaces, and café — were identified in each precedent’s plan. The relationships of the spaces these compositions created were studied and ultimately influenced the adjacencies of the spaces in the Film Institute.

To see the vertical relationship of the spaces, a vertical space adjacency diagram was created for each precedent as well. Since the Film Institute’s site would require some vertical composition of spaces this study was influential in the final arrangement of spaces in the Film Institute.
Horizontal Space Adjacency Comparison: These space adjacency comparisons locate the cinema in the plan of each precedent. From there, the adjacencies of the other main Film Institute spaces were added. The adjacency of each of the spaces depended on outside factors — such as the site, number of floors — however trends can be seen in the spaces that are typically placed near other spaces. In all but one of the examples seen here, the exhibition/gallery space, cinema, and cafe are located within close proximity to one another.
Path Analysis

Bill Hillier’s method of spatial analysis diagrams the “depth to which visitors are permitted to penetrate into a structure.” This was applied to the selected precedents. Elements through which a visitor must pass – such as:

- doorways
- floor changes
- other spaces

were noted, thereby identifying the particular space’s accessibility. Spaces studied in this analysis include cinemas, education spaces, exhibition/gallery space, archives/libraries, and cafes.
Film Institute Program Public to Private: Space adjacencies are based on the spaces’ need for privacy. Apartments are the most private spaces in the Film Institute, while spaces such as the cinema, café, and exhibition area require the least amount of privacy. Offices and educational spaces fall in between; access may be limited to those with appointments.

Considering the precedent analysis as a whole, some preliminary conclusions about how the spatial relationships should be composed in the Film Institute made themselves evident.

The path analysis diagrams bring to light the issue of public versus private and how each can be used. With such a wide range between the two—from private apartments to open gallery and café spaces—the individual space adjacencies need to be carefully considered.

Analysis Conclusions

Utilize specific spaces as a means of circulation to encourage interaction with other spaces.

Make public spaces easily accessible.

Make private spaces private.
The analysis, conclusions and site research helped lay the foundations for the design of the Film Institute. Site conditions, including the regulating lines studies, were taken into account in this initial design phase. The precedent analysis conclusions were utilized in developing a spatial composition of the Film Institute’s spaces.

In this section, further site conclusions are explained and the process design is shown. “The scheme” presented at the conclusion of the first semester is included as well.

Conceptual Design
With the issue of public versus private arising from the path analyses, I looked to the Nolli Map of Rome to study ways in which public and private spaces engage with the city. The map clearly illustrates what is private and what is public; however, the unique aspect of the map is how the interior public spaces are represented. The interior spaces of public buildings, such as churches, have similar qualities as outdoor public spaces, and, therefore, merge with streets and parks outside.

With this project, engaging the city with the building is a main objective. Taking cues from the Nolli Map, the passage within the building becomes as public of a space as the streets and public square within which it sits.
The Passageway

Identifying the passage within the building as a public space is the primary gesture to the building's engagement with the city. The open space running through the center of the Film Institute becomes a public interior street which pulls Leicester Square into the building, thereby engaging the city and its people as well. The passageway beckons to the passers-by in Leicester Square to enter into its movie-lit interior.

The idea of the passageway involves more than just a circulation space. The passageway possesses a multitude of opportunities for a variety of activities to occur within it. As a gallery space, the passageway could display film and/or London-related exhibitions. When the Institute hosts film premieres, the passageway could be used for overflow seating for the theater. For film premieres, private parties, and Institute-sponsored events, the passageway could serve as a reception space within which dinner tables and chairs, dance floors, conference tables, hanging banners, and meeting booths could be set up. For special live performances, the passageway could serve as a theater itself to include a stage and seating. The options for the passageway’s uses are limitless which is why the space would be successful in engaging the city.
Process: Three Schemes

In developing an architectural composition for the Film Institute, three schemes were created which explore the opportunities with spatial interaction within the passageway. The conclusions from the precedent research were taken into consideration, allowing me to separate the program into three main spaces: institutional (the education spaces), recreational (ultimately the passageway), and residential (the apartments). While each scheme follows the same general layout of these three main spaces -- a main pass through in the center for recreational spaces, residential spaces on the northeast corner of the site, and institutional on the west side -- the arrangement of the main spaces' specific spaces vary slightly.

The three schemes' main differences deal with the center passageway and the rest of the building's interaction with it. For example, consider the placement of the theater in each of the three schemes. Scheme A -- with the screen pushed towards the center of the passageway -- is more successful at engaging the passageway than that of the theater in Scheme C -- in which the theater faces the inside of the north-facing exterior wall. A similar problem occurs with the theater in Scheme B in which the screen faces the south-facing wall, towards Leicester Square. While this placement is quite successful at interacting with the Square, the positioning of the screen actually cuts off the rest of the building from the activity in the active square outside.
Scheme B
The Scheme

The final scheme presented here derives from the three schemes on the previous pages. This scheme merges the successful elements identified from the three schemes into one building. Three objectives were identified and taken into consideration during the development of this final scheme.

- Develop an interactive research center for film studies and appreciation
- Provide resources to encourage and enable film research and education of the public about film
- Engage the city and public in the Film Institute through the building’s multi-use program

A restaurant, bookstore, and lecture hall featuring Institute sponsored speakers on the main level attract the public to the building. The Institute itself occupies the second through fourth floors of the building, with access to the spaces provided via circulation within the passageway. A third floor cafe provides a needed break for film researchers, while the floating cinema projects films not only to those seated in its space, but to the whole passageway.
The section above is taken through the passageway looking west in the building. The interior of the cinema can be seen on the right side of the image. The restaurant is visible on the first floor towards the center left of the image, above which the shelves in the Film Institute can be seen.
Second Semester Focus

When the second semester began, the center of the project up to that point, the interior street, took a more dramatic shift, one based not on architectural principles, but on the shimmering and murky world of film theory. No longer was the project about the building as a whole, but about the passageway and the walls that formed it. The idea of the passageway consisted of more than just a circulation path; it was about the space it created, to be used not only for transition from one point to another but as a destination in itself. This passageway and the opportunities it created -- to incorporate film (a moving image!) as a material object, to create a physical, three-dimensional space that would be as full of life and motion as the films it was inspired by -- became the project's focus.

The first and most obvious opportunity created by the passageway was the transformation of the interior walls, which physically defined the interior street. They were no longer mere walls; they became interior facades lining the interior street passing in front of them. Ideas of shop fronts and entrances came to mind; however, a term which originated in the theater, possesses the most intrigue: the fourth wall.
The Fourth Wall

The fourth wall originated as a term used in performance theater to describe the invisible wall that separates the audience in a theater from the actors on-stage. It is a theater convention to which all parties agree on -- the audience accepts the presence of this wall through which they can see the story unfolding on-stage, and the actors are aware of this wall which creates the private space within which their experiences take place.

Breaking the fourth wall is a theater term used to describe instances when the invisible wall is broken. Characters in Shakespeare's plays often do this when they address the audience. By acknowledging the presence of the audience the actors “break” the wall, hence the term “breaking the fourth wall.”

Though these terms were initially used just for theater, other fields, including literature and film studies, have adopted the terms. Through my project I illustrate how these terms can be applied to architecture as well.
A series of conceptual interface sketches were done between first and second semesters to explore different ways in which the fourth wall could be addressed architecturally. Sketches on this page explore light and shadow as surfaces and vertical slats which would create open and closed views.

The Interface

The interface is the physical manifestation of the fourth wall and the first attempt at transforming a theater convention into architecture.

“Interface” defines the plane which separates the interior from the programmed spaces. Ultimately, the interface is the Film Institute’s fourth wall. The interaction of those two spaces — that of the passageway and of the spaces adjacent to the passageway — generated the different sketches seen to the left.

Light, shadows, wooden slats, glass, and television screens are a few of the elements used in the development of the interface scenarios.
The sketches on the two pages here explore film and projection as an interface as well as varying degrees of transparency. Also explored as space creators and definers are the more traditional architectural elements: columns, beams, ceiling height, and material changes.
The sketches on this page continue the exploration of lighting techniques as interfaces. Development of the architectural elements is more specific to the types of spaces within the Film Institute; for example, bookshelves as columns and checkout stands as half walls and railings.
While the sketches proved to be beneficial studies of the interface’s potential, they were unable to fully capture the spaces surrounding the interfaces. The fourth wall itself is about the separation of spaces, so the interfaces were in need of three-dimensional representation.

Interface study models started from the sketches, but as I began to work in the new medium, the ideas for other potential interfaces began to multiply. Working in a three-dimensional format provided a better understanding of the spaces the interfaces were to separate.

Shown on these pages is a handful of the total number of interface models created. Materiality became the driving force for the models. Transparency, the use of light, and the potential of shadows are clearly evident in many of the models.

Constructing Spaces

The materials used to make the interface models on these pages include vellum, chipboard, canvas, duralar, and scraps of what would ordinarily be considered trash (such as leftover packing materials and the blue plastic covering on duralar sheets).
Frames: Top left: This sketch explores how the frame could be incorporated into the Film Institute in Leicester Square. Early frame integration designs experimented with the frames serving two purposes: that of the structure of the wall and building and as the interface frames.

Bottom left: This image is a series of photographs taken by Eadweard Muybridge in 1878 called “The Horse in Motion.” Muybridge set fifty cameras parallel to the horse’s track. The shutters of each camera were controlled by individual strings laid across the track which would be triggered by the horse’s hooves. With this series of photographs, Muybridge proved that a horse’s hooves are all off the ground at one point in the gallop.

The Frame: An Unintentional Element

The bass wood frames providing the structure of the interface models were originally intended as an invisible element whose sole purpose is to provide a plane onto which the interfaces could be applied. As the interface models multiplied, the frames holding them together became more and more apparent. They became as much of a part of the interface as the interface itself.

The dramatic reappearance of this vestigial element returned the project’s focus to its initial inspiration: film. A film class on the technical innovations in film provided further insight in how to explore film as a physical entity. The course had initially fulfilled its purpose of furthering my knowledge about film; in the end it caused me to see architecture in a new light and provided the answer to the frame dilemma.

At the heart of films is the fact that films are made of frames. Films consist of thousands of slightly different still images called frames and are projected in rapid succession to create the illusion of motion. Twenty-four frames per second is the standard ratio for movies today and is the minimum threshold for creating critical flicker fusion, the threshold where a person’s brain goes from reading still images (frames) to seeing them as motion. Movies are not actual moving images. Movies move with the help of human physiology. Critical flicker fusion is paired with the persistence of vision theory to more fully explain how films move. Persistence of vision is the tendency of an image to linger briefly on a person’s retina, thereby creating the impression that the image is moving. This information reinforced that the frames really did belong in the Film Institute. The challenge then became to figure out how to translate frames into architecture.

Considering how filmmakers use the frame in films, the Film Institute frames became visible architectural elements by placing, defining, and sizing them according to film terms, specifically terms defining types of shots. Incorporated into the interior facades, the frames were not merely flat pieces placed on the walls, but three-dimensional forms affected in size and placement by the spaces with which they were paired.

In film terminology, a shot is a continuous strip of motion picture film that runs for an uninterrupted period of time. Shots are filmed with a single camera and are of variable duration. Different types of shots are used in filmmaking for various effects: to make a scene seem more relaxed, realistic, or fast-paced, to create a sense of cubic volume in a film, or to capture a specific image or space in order to enhance the film’s narrative.

The following pages define some of the types of shots and filming techniques used in creating the frames in the Film Institute.
Intra-frame narrative, or mise en scène, is a style of filming which conveys the information of a scene through a single shot, often accompanied by camera movement.

The use of intra-frame narrative creates a more realistic feel to the film because it is similar to the way people see the world.

Intra-frame narrative was translated into a rectangle shape in the Film Institute. Mimicking the term's connection with a single shot, the intra-frame narrative frames vary in horizontal length.

Inter-frame narrative

Contrasting intra-frame narrative is the term inter-frame narrative, and montage, which deals with filmmaking where the narrative is carried through multiple shots. In montage multiple shots are pieced together through editing.

The use of inter-frame narrative, and montage, creates a fast-paced feel to the scene because images and shots are changing quickly and often.

For use as a frame in the Film Institute, inter-frame narrative was translated into a series of frames placed directly next to one another. This form represents the term’s use of multiple shots for one scene. Inter-frame narrative frames in the Film Institute often occur within a single room or space in order for those viewing to get multiple “shots” of what is happening in the space.
Panning

Movie cameras pan by turning horizontally on a vertical axis; oftentimes the camera is mounted on rails which move the whole camera platform.

Panning is used to extend the space in a scene or follow characters in motion.

Translated into a frame in the Film Institute, the panning frame is a rectangle shape which allows viewers to see the extended space behind the frame.

Crane Shot

A crane shot is a shot taken by a camera on a crane. The most obvious uses are to view the actors from above or to move up and away from them, a common way of ending a movie.

Crane shots are used to give depth to scenes. They allow the audience to be aware of the cubic space in the scene not only through what is seen but also through what is heard. Sounds can be picked up at various points as the crane travels through the scene, providing the scene with another dimension of depth.

As a frame, crane shots were translated into the Film Institute as vertical rectangles. Due to the fluid motion of crane shots, though, the feeling they create in films could be understood as one travels through the Institute via its ramps and other vertical circulation paths. Not all experiences of crane shots are confined to the physical frames on the interior facades.
tracking shot

Creating similar effects as panning and the crane shot, a tracking shot is when the camera is mounted on a wheeled platform and pushed on rails while the picture is being taken.

Tracking shots can be used for emphasis on a stationary subject or to move along with a moving subject.

Tracking shots were translated into horizontal rectangles of varying length in the Institute. Like the crane shot, tracking shots contain a fluid motion which could be likened to walking through a space. Therefore, not all tracking shot experiences are confined to the physical frames on the interior facades.
The Final

The next pages include drawings of the final version of the Film Institute. These images were used in the presentation at the final review.

In addition to the drawings shown here, the presentation itself was used as a tool to convey the idea of the Film Institute’s design which articulated the architectural fourth wall.
Second & Third Floors: The plans seen here are the second and third floors of the Film Institute. The second level (left) of the Institute includes the archive and classroom spaces on the west, apartments on the east, and the cinema in the passageway. A catwalk, located at the Leicester Square entrance, is also accessed on this level. The third level (right) includes more classroom and archive space, cinema seating, and apartments. A cafe, positioned between the archive and classrooms, is also located on this level.
Fourth & Fifth Floors: The plans seen here are the fourth and fifth floors of the Film Institute. The fourth level (left) includes more archive and classroom spaces, apartments, and cinema seating & the projection room. The fifth level (right) includes office space for the Institute, more archive space, and apartments.
Real materials

Interfaces which blur the architectural fourth wall may seem like a purely conceptual idea, however there are many existing materials readily available today which could be used in the Film Institute to confuse reality.

The following pages highlight a few of the materials whose unique characteristics would help make the Film Institute a place of blurred realities. Their specific applications in the Institute are also explained.
Translucent Fabric

The Krystal Weave line was originally designed with window coverings in mind; however, the translucent fabrics can be used for a variety of other applications such as wall hangings, space dividers, and upholstery.

In the Film Institute, these translucent fabrics could be used as a frame interface material.

www.kovatextiles.com

“Upon first encountering the product, people are often struck by what they think is an optical illusion. Walking past a window with Lumisty applied, a perfectly clear, transparent glass surface becomes, in a step or two, partially fogged. Two or three steps later, the same window is completely fogged. Walk backward or forward and it is clear again. As the viewer’s angle shifts, so does the transparency...of the film.”

In the Film Institute, Lumisty Film could be a common frame interface material. Lumisty could also be used to separate the Lecture Hall from the restaurant at the bar.

www.lumistyfilm.com/lumisty.htm
“HoloPro stands for holographic projection screen. Holography is what makes it all possible: brilliant colors illuminate on a transparent screen -- and they do so even in broad daylight!”

In the Film Institute, HoloPro projection surfaces could be used as a frame interface material, as well as throughout the building where other projection screens are needed -- such as in the Lecture Hall, classrooms, and individual screening rooms.

“HoloPro Transparent Projection Surface

www.holopro.com

Structural Channel Glass

“This simple concept of self-supporting glass channels within an extruded metal perimeter frame enables the creation of many innovative and exciting architectural designs.”

In the Film Institute, Structural channel glass could be used as the main interior facade material for the apartments, as well as for individual frames in the institutional side of the building.

www.reglit.com
The extraordinary aesthetics of the metal meshes gave the first impulse for their use in architecture and design. Over the years, metal meshes have been used not only for their visual effects, but also for their functional and technical advantages.

In the Film Institute, varying weaves of metal meshes would be used as a frame interface material.

Creative Weave Metal Mesh

Textured Glass panels come in a wide variety of patterns suitable for indoor and outdoor applications. Each glass design captures and diffuses light in different ways.

In the Film Institute, textured glass panels could be used as a frame interface material.
The image to the right is the first of three multi-media renderings of the route through the passageway. This rendering is taken just after one would enter the passageway from Leicester Square. Interfaces and frames can be seen in the left part of the image. The Institute’s cinema screen, a transparent surface able to be projected upon from one side but visible from both, can be seen in the center of the image.
The image to the right is the second of three multi-media renderings of the route through the passageway. Taken from the balcony of the cinema, this rendering shows Leicester Square through the large open front facade of the Film Institute. The stairs and ramped area at this end of the passageway provide a space for casual interactions as well as a small open stage environment for special performances.
The image to the right is the third of three multi-media renderings of the route through the passageway. Showing the view from one of the stair's landings, this rendering provides a more detailed illustration of how the interfaces not only separate spaces, but how they can create confusion as to what is real and what is not. The café is behind the main set of interfaces at the right of the image.
a panning frame

Film Institute in Leicester Square

an example of inter-frame narrative translated into an Institute frame

access to the Leicester Street entrance

an example of a crane shot frame looking into the offices

the archive entrance interface

a flat-screen television interface

a cafe frame showing the restaurant behind the interface

the HoloPro transparent projection surface cinema screen

Lecture Hall entrance

a Lumisty Film restaurant interface

the interface material extends the space while capturing the passers-by

a cafe frame showing the restaurant behind the interface

a reflective material extends the space while capturing the passers-by

an example of a crane shot frame looking into the offices

Lecture Hall entrance
Sections (previous two pages): The images on the previous pages are a multimedia section taken through the center of the passageway looking west in the Film Institute. The restaurant and lecture hall are located on the main level, the archive and classroom spaces are on the second through fourth floors, and the offices are on the fifth floor. Also seen is the interior space of the cinema and how it relates to the rest of the passageway.

The second image is an annotated section which points out access to specific spaces, interface materials, and different examples of frames translated from the different types of shots and film techniques.

Facing the Square (facing page): The above image is a watercolor rendering of the entire block containing the Film Institute’s south facade. A projected film can be seen through the facade’s columns along with the glow from the glass roof.
Final Presentation: Drawings of sections, perspectives, plans, elevations and site information were all mounted on individual stacks of foamcore to create a more three-dimensional presentation which attempted to mimic the design of the "fourth wall" in the Film Institute. The interface study models were incorporated into the presentation as well.
The relationship between film and architecture is a topic always ready for exploration by designers. Unfortunately, real-life projects designed by architects often lack in-depth analysis of concepts because they are in fact real projects with limited budgets and strict timelines. In the Film Institute project, these conceptual ideas relating architecture and film were able to be thoroughly explored because the Film Institute was an academic project, a student-driven Masters of Architecture thesis project. The project's foundations were strengthened because investigations into film conventions, such as the fourth wall and the frame, were able to be conducted and then translated into architecture.

Conclusion
Manipulating Architecture’s Fourth Wall

The following is a draft of a research paper written for Theater 480, Technical Innovations in Film, which I took the Spring Semester of 2006. At the time this book was printed, the paper had not yet been finished; however, due to its direct relation to my thesis project, the paper was included in this book in draft form.
The fourth wall is a convention upon which the audience and actors agree. They are both aware of their roles in the picture of movie-going. The audience in the theater sits in the dark watching the story unfold on the screen while the characters (really just actors in the movie) live out their lives not knowing their most intimate moments are being watched by a crowd of strangers. The success of the motion picture industry thrives on the public's fascination with the “fourth wall.”

Breaking the fourth wall to encourage his audience to think more critically about what they were watching, Brecht used techniques to remind the audience that they’re performing in a play or film. Characters would have intimate conversations with each other, and the audience was let into their most intimate moments are being watched by a crowd of strangers. The success of the motion picture industry thrives on the public’s fascination with the “fourth wall.”

Breaking the fourth wall to encourage his audience to think more critically about what they were watching, Brecht used techniques to remind the audience that they’re performing in a play or film. Characters would have intimate conversations with each other, and the audience was let into their most intimate moments are being watched by a crowd of strangers. The success of the motion picture industry thrives on the public's fascination with the "fourth wall."
of breaking the fourth wall in film. This technique can be used to provide comic relief or to serve as narration for the story.

In the 2001 film *Two Can Play That Game*, narration is used throughout the film as a form of "how to" advice by Tevye. The camera is set to look straight at the audience when the main character, Tevye, speaks directly to the fourth wall. In contrast, the film also utilizes the traditional setting in which the main character, Shante, addresses the audience and that of the characters—as he refers to "us" (the characters) and "you" (the viewer). The main character addresses the camera directly, stepping out on his side comments directly to the viewers in times when the narrative needs to break the fourth wall. The voice-over correlates to what is seen on the screen, serving as an element which acknowledges the separation between audience and character, "You may ask, how did this tradition get started? I'll tell you... I don't know. It's a tradition. And because of our traditions, everyone knows who he is and what God expects him to do."

Other films have broken the fourth wall in the same manner. The 1999 film *Notting Hill* employs a similar type of opening narrative. *Fiddler on the Roof* uses a similar approach, with the opening scene serving as an introduction to the story, the audience, and the story's geographical setting. The first ten minutes of the film are spent with Tevye talking directly to the audience. In addition to the direct instances of Shante's visual connection with the camera and audience, there are also numerous times throughout the film when the camera and characters make side comments directly to the viewers in times when a point was made earlier about how to orchestrate the story. The opening of the narrative world's current day's task is illustrated in the narrative world's current day, with the opening scene establishing a separation of parties—that of the audience, Tevye, and others, and that of the characters. While the visual connection with the audience is broken, it does not necessarily weaken it in *Notting Hill*. Instead of the actual character having the visual connection, the film's camera movement in that opening scene serves as an element which acknowledges the fourth wall. The voice-over correlates to what is being seen in the scene. As the camera glides over the space, the feeling of being surrounded and the fourth wall are drawn into it. This technique references metafiction and the effect of breaking the fourth wall. Instead of blatantly acknowledging the separation, this technique gently reminds viewers they are in fact outside of the film and is through these camera viewpoints that they are drawn into it. This technique is not a simple metafiction, as the film is subtly drawing attention to itself as being a film by using these camera techniques.

**Architecture's Fourth Wall:**

The film-going experience involves many conceptions, including the length of the film, the drama of a largely passive audience, the acceptance that the actors are portraying other people, and more conventional aspects such as plot and character.

The development of an architectural terminal project has much in common with the film-making and film-viewing processes. There are initial ideas, a final product, a change in directors, and key scenes and characters.

This section documents the process that re-shapes the three separate elements to create a sense of being in the setting has a reverse effect of breaking the fourth wall. Instead of blatantly acknowledging the separation, they use techniques that remind viewers they are in fact outside of the film and it is through these camera viewpoints that they are drawn into it. This technique is not a simple metafiction, as the film is subtly drawing attention to itself as being a film by using these camera techniques.
The fourth wall itself is about the separation of spaces, to fully capture the spaces surrounding the interfaces. In the studies of the interface's potential, they were unable to see the fourth wall and the first attempt at transforming the interface itself. The interface is the physical manifestation of the fourth wall and the first attempt at transforming a plane onto which the interfaces could be applied. As the interface models evolved, the frames became as much of a part of the interface as the interfaces were in need of three-dimensional representation. In the study models started from the sketches, but as I began to work in the new medium, the ideas for other potential interfaces began to multiply. The fourth wall of vision is the tendency of an image to linger briefly on a person's retina, thereby creating the impression that the image is moving. This information reinforced that the frames really did belong in the Film Institute. The challenge then became to figure out how to translate frames into architecture, how filmmakers use the frames in films, the Film Institute frames became visible architectural elements by placing, defining, and sizing them according to film terms, specifically terms defining types of shots. Incorporated into the interface facades, the frames were translated via transparency, the use of light, and motion as the films it was inspired by became a better understanding of the spaces the interfaces were to be separate. Materiality became the driving force for the models, with transparency, the use of light, and the potential of shadows clearly evident in many of the models. (see images on pages 50-63)

The Frame: An Unintentional Element

In film terminology, a shot is a continuous strip of motion picture film that runs for an uninterrupted period of time. Shots are filmed with a single camera and are of variable duration. Different types of shots are used in filmmaking for various effects: to make a scene seem more relaxed, realistic, or fast-paced, to create a sense of cubic volume in a film, or to capture a specific image or space in order to enhance the film's narrative. (see images on page 64)

The types of shots translated into architecture in the Film Institute included panning, crane shots, and tracking shots. Panning is used to extend the space in a scene or follow characters in motion. Mov- ing the camera by turning horizontally on a vertical axis, the images on opposite sides of the frame can be seen. Crane shots were translated into the Film Institute as vertical rectangles. Due to the fluid motion of crane shots, though, the feeling they create in films could be understood as a form of movement in space. Crane shots were translated into the Film Institute as vertical rectangles. Due to the fluid motion of crane shots, though, the feeling they create in films could be understood as a form of movement in space.

A crane shot is a shot taken by a camera on a crane. The most obvious uses are to view the architecture from above or to move up and away from them, as the crane travels through the scene with another dimension of depth. As a crane, crane shots were translated into architecture as horizontal rectangles of varying length in the Institute. Like the crane shot, tracking shots contain a fluid motion which could be likened to walking frames. Films consist of thousands of slightly different still images called frames and are projected in rapid succession to create the illusion of motion. In film, the frames were translated per second onto a vertical axis; oftentimes the camera was mounted on rails which move the whole camera platform. Translated into a frame in the Film Institute, the panning frame is a rectangular shape which allows viewers to see the extended space of the Film Institute. A crane shot is a shot taken by a camera on a crane. The most obvious uses are to view the architecture from above or to move up and away from them. Sounds can be picked up at various points in the crane travels through the scene with another dimension of depth. As a crane, crane shots were translated into the Film Institute as vertical rectangles. Due to the fluid motion of crane shots, though, the feeling they create in films could be understood as a form of movement in space.
Intra-frame narrative, or mise en scène, is the term's use of multiple shots for a variety of other applications such as wall hangings, space dividers, and upholstery. The translucent fabrics such as these could be used as a frame interface material. (see image on page 83)

Another real material is Lumisty Film. “Upon first encountering the product, people are often struck by what they think is an optical illusion. Walking past a window with Lumisty applied, a perfectly clear, transparent glass surface becomes, in a step or two, partially fogged. Two or three steps later, the same window is completely fogged. Walk backward or forward and it’s clear again. As the viewer’s angle shifts, so does the transparency... of the film.” In the Film Institute, Lumisty Film could be used as a frame interface material. Lumisty could also be used to separate the Lecture Hall from the restaurant at the bar. (see image on page 81)

Projection screens were also incorporated into the Film Institute as interface materials. One specific type of projection screen has been noted for its transparent qualities. “HoloPro stands for holographic projection screen. Holography is what makes it all possible: brilliant colors illuminate on a transparent screen... and they do so even in broad daylight!” In the Film Institute, HoloPro projection surfaces could be used as a frame interface material, as well as for individual frames in the institutional side of the building. (see image on page 83)

The Krystal Weave line from Kova Textiles was originally designed with window coverings in mind; however, the translucent fabrics can be used as the main interior facade material for the apartments, as well as for individual frames in the institutional side of the building. (see image on page 82)

Structural channel glass was originally designed with window coverings in mind; however, the translucent fabrics can be used as the main interior facade material for the apartments, as well as for individual frames in the institutional side of the building. (see image on page 82)

Real materials

Interfaces which blur the architectural fourth wall may seem like a purely conceptual idea, however, they are in fact real projects. In the Film Institute, HoloPro projection surfaces could be used as a frame interface material, as well as for individual frames in the institutional side of the building. (see image on page 83)

The extraordinary aesthetics of metal meshes gave the first impulse for their use in architecture and design. Over the years, metal meshes have been used not only for their visual effects, but also for their functional and technical advantages. In the Film Institute, varying weaves of metal meshes would be used as a frame interface material. (see image on page 84)

Textured glass panels come in a wide variety of patterns suitable for indoor and outdoor applications. Each glass design captures and diffuses light in different ways. In the Film Institute, textured glass panels could be used as a frame interface material. (see image on page 85)

A series of renderings were created to illustrate how the fourth wall of the Film Institute might look with the incorporation of the real materials. (see images on pages 87-97)

Conclusion

The relationship between film and architecture is a topic always ready for exploration by designers. Unfortunately, real-life projects designed by architects often lack in-depth analyses of conceptual ideas, such as the way people see the world. The extraordinary aesthetics of metal meshes gave the first impulse for their use in architecture and design. Over the years, metal meshes have been used not only for their visual effects, but also for their functional and technical advantages. In the Film Institute, varying weaves of metal meshes would be used as a frame interface material. (see image on page 84)

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A series of renderings were created to illustrate how the fourth wall of the Film Institute might look with the incorporation of the real materials. (see images on pages 87-97)
Bibliography

"'Am Alten Hafen,' Hetjens Film Museum." A+U: 60-66.


Initial project proposal: Reel History: Can form follow film?

Statement of intent:
Films have been capturing the spaces surrounding us since their beginning, allowing generation after generation to observe a city’s spaces witnessed firsthand by those before them. Is it possible for these films to be a form of historical documentation for a city’s space? Can films create architecture? Ultimately, can form follow film?

Using film as a vehicle for discovering and creating architecture, I propose to design a history-through-film museum for my terminal project. I plan to present a city’s history through the films that have documented its changes over time by translating their varying essences into three-dimensional spaces to form the building, the spaces within, and the displays. These films will serve as the means to selecting a site, in addition to serving as the primary display medium in the exhibitions. The movement through space and time will be considered, allowing for future expansion of the museum.

Wishing to engage the community, the museum aims to attract the city’s own populace to visit the space, as well as become involved with the material presented within. Beckoning inhabitants to get involved, museum activities will be interactive, such as an ongoing...
Commitment to meet NAAB criteria: my project can be divided into four phases—pre-design, schematic design, design development, and presentation. At each phase a number of NAAB criteria will be met, as described below:

1. Speaking and Writing Skills: Speaking skills are necessary for productive conversations with my advisor and peers about the ideas and plans for the project. Also, these skills will be used during more formal critiques to successfully convey my ideas to the jurors.

2. Critical Thinking Skills: Critical thinking will be necessary for successfully designing the structure as well as presenting my ideas and concepts.

3. Graphic Skills: Graphic skills will be utilized throughout the development of the project.

4. Research Skills: Research will be a necessary part of the project as it progresses.

5. Formal Ordering Systems: Formal ordering systems will be necessary for successfully designing the structure as well as presenting my ideas and concepts.

6. Fundamental Design Skills: Fundamental design skills will be necessary for successfully designing the structure as well as presenting my ideas and concepts.

Program Preparation:

1. Speaking and Writing Skills
2. Critical Thinking Skills
3. Graphic Skills
4. Research Skills
5. Formal Ordering Systems
6. Fundamental Design Skills

Presentation:

1. Speaking and Writing Skills
2. Critical Thinking Skills
3. Graphic Skills
4. Research Skills
5. Formal Ordering Systems
6. Fundamental Design Skills

Design Development:

1. Speaking and Writing Skills
2. Critical Thinking Skills
3. Graphic Skills
4. Research Skills
5. Formal Ordering Systems
6. Fundamental Design Skills

5. Site Conditions

Design: The design of the project will be considered as a comprehensive whole.

11. Use of Precedents

23. Building System Integration

28. Comprehensive Design

Site description: For site selection, I propose to develop a system for film interpretation to be used to create a history through film museum in any city. For my terminal project, I have chosen London, England, a culturally diverse and expanding urban space which possesses an active relationship with film, to illustrate how this system will be applied to the city.

Film selection is dependent upon city selection. An initial film list for London, England is included below; however, it is preliminary and, therefore, subject to change. More films will be added, while others could be replaced.

101 Dalmations
Bedknobs and Broomsticks (1971)
Bridget Jones’ Diary (2001)
Brooke Shields (1994)
Four Weddings and a Funeral (1994)
Lock, Stock and Two Smoking Barrels (1996)
Mary Poppins (1964)
Oliver!
Robin Hood Prince of Thieves
Sense and Sensibility
Shakespeare in Love
Sliding Doors
Snatch
The World Is Not Enough
The Mummy Returns

Film Institute in Leicester Square
Ultimately, films will be selected based on the following criteria. As a group, selected films will cover the city’s existence, from the city’s beginning years to today. This will be accomplished by selecting individual films that 1.) were filmed in the city during a specific year or time period, or 2.) simply portray a specific year or time period (i.e., a film that was filmed in 1999 but portrays the 1890s). Films must have been filmed in the selected city and include scenes where the city is shown. The city must play a substantial role in the film in order for it to be considered. Therefore, a film only showing a skyline view of the city will not be included due to the minimal visuals of the city.

Once a city has been chosen and films have been selected, the site within the city is determined by film. After mapping out the ten most filmed locations in the city, the site for the museum is the point which lies in the center of those locations. Realizing that this location can change as new films are made, a moving exhibit will be developed to continue to mark the central location of the current most filmed locations.

Anticipated methods of analysis:
Films will be used throughout the duration of the project and will influence various areas of the design—from museum displays to the building design.

The development of a system to analyze each film will allow interpretations of the films to be seen and understood by all. The system will help define the spaces according to size, location of the space within the museum, and materials used.

Various existing buildings and spaces—including museums, art galleries, Omaha’s Henry Doorly Zoo Aquarium, and London’s Piccadilly Circus—will be identified as case studies. Graphical analysis of spatial layouts and circulation methods will be made to better understand these elements. Circulation will be very important to this project because of the use of films—both as a medium and in regards to what the films are showing. As visitors walk through this building and experience different films from different eras, they are walking through time. How does one circulate through time? These spaces’ methods of incorporating audio-visual elements into architectural spaces will also be studied.