DESIGNING FROM BEHIND THE CAMERA:
CREATIVE INTERDISCIPLINARITY IN FILM, ARCHITECTURE AND INTERIOR DESIGN

Graham Cairns

Writtle School of Design, Essex, United Kingdom

Abstract

Architectural and Interior design are disciplines that are by nature interdisciplinary. Whether in dialogue with engineers, builders, lighting designers or furniture makers, the architect and interior designer is forced to think in more than one register. The same applies in the creative sphere. In their own creative endeavours, architects and interior designers have always drawn on the ideas, concepts, theories and practices of other disciplines. Both the practice and conceptualisation of architecture and interior design then are interdisciplinary.

In this paper the potential role film has as an educational tool in the fields of architecture and interior design will be discussed. We will show examples of set designs that teach us lessons of spatial composition, lighting, decoration and spatial layout. Our focus will be on how film can be used on a more theoretical level to teach students about spatial design theories and approaches.

In this context it will draw upon work done by the author with students of architecture and interior design in both the UK and Spain. In Part 1, it will show how students are able to analyse film and directorial techniques to understand how film directors look at / use space. In Part 2 it will go on to show how that understanding has been used by students in design workshops to discover and explore previously hidden possibilities in spatial layouts and arrangements.

Specifically, it is a paper on the relationship between film and spatial design. However, in a general sense, it is a paper about the potential of interdisciplinary design thinking in an educational context.

Key Words

Part 1: physical space, cinematographic space, architecture
Part 2: storyboards, spatial filming, spatial design

Introduction

Cinema has been a natural testing ground for architects examining alternative approaches to their discipline ever since its inception at the end of the 19th century. Similarly, it has been a natural arena in which film directors have worked on their own particular take on spatial issues. In some cases this has resulted in the development of spatial concepts as complex as those found in the work of many architects. In his 1996 publication, *Film Architecture from Metropolis to Blade Runner*, the German writer and critic Dietrich Neumann identified three general ways in which a dialogue between film and architecture can be developed;

cinema as a reflection and commentary on architecture and the cit;
cinema as a testing ground for innovative architectural visions;
cinema as a field in which different methods of practice can be applied to the realization of architectural projects. (Neumann, 1997: 7)

With regard to the use of cinema as a *commentary on architecture* films such as *Blade Runner*, *Playtime* o *Metropolis* are exemplary; each one becoming points of reference for the architectural debates of their day. (Vilder, 1993: 53) In the context of cinema as *a testing ground for innovative design ideas* it is probably in the genre of science fiction films that one finds the best examples. Working on James Bond films for example, designers such as Ken Adam were able to realise architectural visions that, in the real world of the architectural profession may have been influenced by real architecture, but would have been all but impossible. (Sylvester, 1999: 14) With respect to *different method of architectural practice* Neumann describes stage sets that have a symbolic content, such as the German Expressionist sets of *The Cabinet of Doctor Caligari*, as typical examples. These

involve the use or design of architecture that has more than a physical role to play in the film in question.

Although Neumann centres on the stylistic and physical characteristics of these stage sets he does hint at the fact that *the way they are filmed* is also important to how they fulfil this symbolic function. He thus references the territory that this work intends to operate in by identifying that, beyond the use of film as a representative medium, such films employ the cinematic medium in order to manipulate our reading of architectural space.

Following this principal, the intention here is to examine exactly how the medium of film achieves this manipulation of space on screen and, subsequently, to examine ways in which lessons taken from this manipulation can be reincorporated in actual architectural design. It is an objective achieved by first; drawing a distinction between the physical spaces used as film sets and the presentation of those spaces on film; what will be called "Cinematographic Space". Once this notion is made clear, the paper will progress by showing examples of projects carried out by students of architecture in their attempts to incorporate lessons from cinema into their own creative thinking.

Part 1: Cinematographic Space.

As a starting point in the study of cinematographic space a distinction between two related concepts is proposed; "physical space" and "cinematographic space". (Cairns, 2007: 175) Physical space is defined as the physical environment for film scenes that may be real places or sets constructed in studios. In contrast, "cinematographic space" is definable as the spatial perception of those sets that is created and presented on screen by the director. Potentially malleable through the use of the camera this *cinematic spatial perception* can differ widely from that of the physical location. Thus, what emerges are two terms that represent a distinction between *what is filmed* and *the way it is filmed*; *real space* and its *mediated perception*.

Accepting a certain level of generalization and inevitable grey areas between these two concepts, this distinction has been developed by the author in order to permit greater depth in the analysis of the film director's work. Thus, it is assumed that the cinematographic construction carried out by the director begins from the datum of the physical set. The spatial perception of this set can be constructed using various techniques.

Amongst these techniques is the strategic placing of a light source in order to highlight a particular characteristic of a protagonist or the deliberate positioning of a symbolic prop so that it appears on screen at a given moment. Alternatively, it may involve the arrangement of furniture so that, when filmed from a particular point of view, it produces the desired compositional effect and even controls the movement of the actors whose planned choreography may be intended to ensure that given moments of dialogue coincide with particular movements or gestures. More fundamentally the techniques of cinematographic construction employed by a director involve the movement and positioning of the camera, the use of certain types of lenses, the duration of takes and the style of editing employed in post-production.

Applying this type of analysis to the spatial vision of the director, a three part division of constituent factors emerges; i) the design, selection and specific organization of the illumination and the decoration; defined here as *aesthetic factors*, ii) the compositional disposition of props and the corresponding effects this has on actor movements; referred to as *compositional and choreographic factors*, and iii) the movements of the camera during the filming process and the subsequent interweaving of images in the editing process; definable as the *filming style* (Cairns, 2007: 176).

The differentiation of these three categories is made in order to permit a manageable and useful classification of the different factors involved in the visual treatment of space seen in film. Although they have been identified as independent categories there are inevitable links between each them and they can be employed in any number of possible combinations. Given that different directors tend to employ their own particular configurations of these factors, and thus develop their own styles and spatial concepts, a thorough investigation of cinematographic space would require the study of a wide range of directors and films. However, one director who was more polychromatic than normal, and thus of greater interest as an object of study, was Orson Welles.

With the aim of experimenting with different spatial constructions, often within the same film, Welles was a director who combined and recombined these factors in multifarious and often contradictory ways. This was certainly the case with his masterpiece, *Citizen Kane*, a film that is not characterised by a definable spatial concept but rather a lack of one. The resulting spatial multiplicity of this film makes it an interesting object of study from the point of view of cinematographic space and it is for this reason that three of its iconic scenes are very briefly analysed here.

Scene 1. *Citizen Kane*

Figure 1: Aesthetic filmic and spatial factors

Set in the living room of Xanadu, the protagonist's mansion home. Here the architectural setting is turned into a symbolic representation of the state of animosity and emotional separation between its two characters. (Figure 1). This is done through a number of techniques. Firstly, the setting is enormous. It has very little furniture and has features such as gothic windows more readily associated with cathedrals than the intimacy of the home. Clearly too big and institutional for a couple, it simply heightens the lack of emotional sensitivity in their relationship. Although this sensation is produced by characteristics of the *physical* space it is heightened by certain cinematographic techniques. For example, he uses a wide angle lens that produces the optical effect of an elongated space. This distorts the proportion of the image and makes Kane appear exaggeratedly small in the distance.

Additionally, Welles films from a relatively high position. This compositional device augments the sensation of distance between the protagonists by showing a larger proportion of the floor surface that separates them. Furthermore, he positions the few pieces of furniture to be found at some distance from one another so as to again emphasise that the couple occupy and live in a space clearly bigger than their needs would dictate.

Although more than enough to stress the emotional undertones of the scene, the director goes even further and emphasises the excessive height and size of the space through lighting. He uses spot lights to illuminate each of the protagonists individually and thus leaves the space between them in darkness. This darkness extends to the ceiling which is apparently too high to fit in shot. The final result of this cinematographic construction is a scene full of symbolic resonances.

Scene 2. *Citizen Kane*

Figure 2: Compositional and choreographic relationship

In this scene we see Kane in one of the lowest points of his professional career (Figure 2). Responding to losses caused by the crash of 1929 he is forced to relinquish control of a great part of his media empire. The scene commences with an establishing shot in which we are presented with an image of his friend Bernstein in the foreground. Positioned on the right hand side of the screen he reads a legal document that covers the left part of the image. It is not until he later lowers the document, that the entire scene and space is revealed; Kane's bank manager is seen in the middle ground and subsequently, Kane appears in the background.

Once all the protagonists are introduced the intention of the director is to underline the seriousness and sobriety of the events related. The camera remains fixed and films in one single long take. It thus creates a completely static spatial sensation within which a cautious deliberate dialogue ensues. In order to maintain this sensation throughout the scene there are a number of compositional and choreographic techniques that the director is obliged to use.

The first of these relates to the positioning of each protagonist who must be located so as to appear in shot at all times. Thus, we see Bernstein in the foreground to the right, the bank manager Thatcher in the middle ground to the left and Kane, centrally position, in the background. This spatial arrangement means that a dialogue can ensue between the three without the need for a change of camera position at any point.

Here, the changes of attention that inevitably accompany the dialogue of the three protagonists are made by the spectator whose eye follows the verbal action as it passes between different parts of the space. The ease with which we follow this spatially separated dialogue is augmented through the employment of uniform illumination in each depth plane. This maintains each protagonist clearly visible and distinguishable throughout the scene. Similarly, there is a strict control over the movements of the actors who are restricted to positions or lines of movement that maintain them in shot at all times.

These characteristics clearly allow the director to communicate a sense of gravitas through static filming but they also do something else; they produce compositional characteristics that lend the scene a certain symbolic meaning. Kane is positioned in the background at a great distance from those who determine his fate. Emphasising his impotence in the face of what is happening around him this distancing of the protagonist is exaggerated through the use of a wide angled lens. This makes him look smaller than he is in reality when compared with the powerful figures of the scene, placed in the foreground.

Scene 3. *Citizen Kane*

Figure 3: Filming style and space relationship

The following scene is one of the most sophisticated in the film and produces a spatial sensation that is as complicated as it is subtle (Figure 3). It is set whilst Kane is still a child. Upon coming into money unexpectedly his parents have decide to send him to Chicago where he will be educated under the tutelage of Thatcher, who later appears as the adult protagonist's banker.

It begins with an image of the child Kane playing in the snow in front of the family house. From this initial starting point the camera makes a slow but continuous backward tracking movement that takes it through an open window into the house. Once inside it continues along its route introducing the

scene's three principal protagonists successively; Kane´s mother, Thatcher and finally his father. Without resorting to a cut at any moment it moves along a lineal path that ensures we maintain a clear view of the child through the window at all times.

This route is co-ordinated with the movements of the protagonists who, one by one, begin to walk forwards following the route marked out by the camera's trajectory. The movements of the three actors, and those of the camera, are perfectly interlaced and co-ordinated with one another until the camera reaches the end of the house where it stops.

At this point we have a fixed camera filming static action organised in an extended deep space composition. In the background we still see the unworried child Kane, whilst in the middle ground we have the weak father. In the foreground are the scene's two dominant characters; the mother and Thatcher. This compositional division is reinforced by the use of architectural elements that separate the shot's different depth planes. For instance, the background is demarcated by a wall through whose window we see the child in the distance whilst the middle ground is defined by the introduction of a partition wall visible on the right hand side of the image.

More than simply operating as a compositional device however, this spatial arrangement has certain symbolic and narrative functions as well. The partition wall seen on the right hand side of the image indicates a limit that the father does not pass in spite of his disagreement with the events in the foreground; the signing of the relevant documentation to send the child to Chicago. Upon limiting himself to a secondary position, his secondary and resigned role is clearly evidenced and even emphasised. Similarly, the positioning of the child in the background underlines his complete innocence and separation from the decisions that concern him.

Stemming from the decision to film in one long take with a moving camera, it was necessary to devise a lineal path along which all the action would take place. This enables the gradual and sequential revelation of the protagonists and the different architectural elements of the interior which, once introduced, remain visible for the duration of the scene. This technique minimises the sense of visual change by clearly making all modifications to the on-screen image both gradual and sequential. It is a sophisticated style of filming in which filming, architectural set and actor movement all combine seamlessly.

Part 2: Architectural Design.

What each of these scenes illustrates is a distinct and individual approach to the creation *cinematographic space*. They each result from a different combination of aesthetic, choreographic, compositional and filmic factors. In principal, aesthetic, compositional and choreographic factors are similar to issues handled in standard architectural design. For example, the employment of a particular type of architectural decoration or lighting effect in a set design is no different to its use in a building. Similarly, a director's arrangement of physical elements as either framing devices or compositional features that control our movement in space is similar, if not identical, to that of an architect. Consequently, it easy to imagine how such cinematographic effects and ideas can be transferred into an architectural project.

In contrast however, it is much more complicated to envisage how questions like the duration of a take, the positioning of a camera or the style of editing employed in post production could influence a conventional spatial design project. However, if considered within the framework of the analogy between the camera and the eye, a potential methodology for their architectural use emerges. Interpreted in this way, the duration of a shot corresponds to the duration of a gaze and the sequences, distances and angles of cinematographic shots can be related to the sequence of views through which we appreciate our physical environment. (Cairns, 2007: 198)

Taken to its logical conclusion, this analogy leads us to consider the perception of a film viewer as identical to that of a building user. Although useful, the analogy is not without its shortcomings. The most obvious of these is the fact that the perception of the film viewer is strictly and tightly controlled by the director, whilst that of the building user can only ever be loosely organised by the designer. Nevertheless, it is a useful analogy that spatial designers have tried to learn from and apply in their own field.

What follows is a brief outline of one example of how this process of application from one field to another can take place. It is a workshop divided into 5 sequential stages, the first of which involves an analysis of the film *Citizen Kane* similar to that laid out above. This facilitates the introduction of cinema's *visual vocabulary* and the idea of *cinematographic space* which are investigated further through the analysis of the work of other directors. These activities eventually lead to architectural design projects that incorporate the concepts investigated. It is designed for undergraduate and post-graduate students of interior design and architecture although it has also been run with students of film and media.

Design workshop. Stage 1

After the initial the introductory breakdown of *Citizen Kane*, Stage One of the workshop involves an analysis of the spatial models employed by a variety of different directors. It focuses on certain celebrated scenes that epitomise their style and involves the use of storyboards, plans and sections as tools of investigation. The aim is to deepen our understanding of spatial cinematographic construction. The example selected here is the mutiny scene from the Sergei Eisenstein classic *The Battleship Potemkin* (Figure 4).

Figure 4: Mutiny scene from the Battleship Potemkin

By using the storyboard to isolate each shot in the scene the students identified that three fixed cameras were used to film single actions from different positions and angles (Figure 5). As a result, perspectives from below, the side and from above are all created. In addition to the graphic fragmentation that this inevitably produces, in some shots the frame of the camera is twisted so as to create diagonal and fragmentary compositions. Consequently, the various trajectories and movements of the protagonists conflict with the orientation of the camera and further heighten the sense of dynamism initiated by the positioning of the cameras.
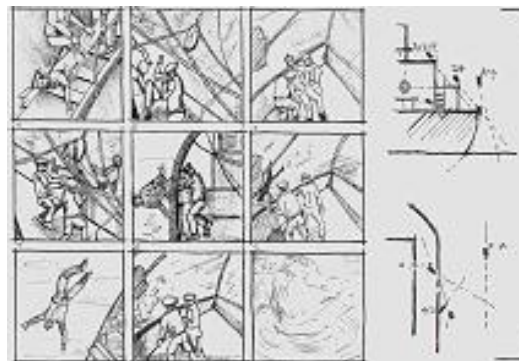
Figure 5: Storyboard spatial and filmic analysis

These initial spatial and compositional decisions represent the first steps in the constructive process of the director. However, it is a construction process that is continued in the post production process where the most important factor in the creation of the work undoubtedly occurs; the editing. Intended to deconstruct the unity of both the space and the action filmed, Eisenstein's editing is definable as a type of collage.

Design workshop. Stage 2

The process of applying the cinematographic lessons taken from these exercises to actual architectural design begins in the second stage of the workshop when, momentarily, the use of storyboards is put to one side. At this stage, the aim of the workshop is to investigate and understand the site used for the later design projects; in this case the Cebada Market in Madrid, Spain (Figures 6 and 7)**.** Rather than employ a photographic camera or sketch book, the tool chosen for this investigation is the film camera. Underlying this decision is a deliberate attempt to identify and highlight the building's hidden cinematographic characteristics. In other words, an attempt is made to identify its filmic potential.

Figure 6 *The Cebada Market exterior*   Figure 7: *The Cebada Market interior*

In the type of narrative cinema with which we are most familiar, the entire filming process revolves around certain important actions or events. Examples may include a fight between two actors or a simple conversation between two romantic protagonists. In such cases there are clear parameters that help orientate the director when taking decisions about the method of filming to be used. Typical in this sense would be the use of multiple viewpoints and rapid fragmentary editing to add dynamism and conflict to the fight scene. Similarly, it may be that a more intimate scene, say a conversation between two lovers, is filmed with longer takes, or indeed in one continuous shot. The aim here would be to stress the self-absorbed tension of the moment.

In contrast however, the filming of a site or a building in order to facilitate its architectural or spatial analysis does not have any sort of narrative drive to help determine the cinematic techniques employed. This *spatial filming* then tends to be a purely formal exercise in which attempts are made to counter this absence of narrative by making the film visually interesting. This results in the employment of visual characteristics such as the use tilted frames and multiple view points, or the employment of unusual camera angles to distort the eye's normal perspective (Figures 8 and 9).
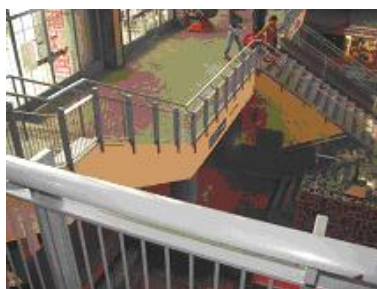

Figure 8: Interior staircase View 1   Figure 9: Interior staircase View 2

This formalistic approach to the filming process is further heightened by the employment of the filming styles introduced in the earlier stages of the workshop; fragmentary, static or continuous and fluid for example. What results from all of this is that certain characteristics of the space that would not normally be considered of importance, or even identified, become central to the way students look. What becomes clear is that depending on the method of filming employed, one begins to identify different but equally inherent spatial characteristics. In a sense what is occurring is a form of spatial defamiliarisation; the reinterpretation of the building's spatial characteristics by virtue of its presentation in unfamiliar formats. This inevitably leads to the identification of a different set of spatial qualities; qualities that may even be called, cinematographic. In this sense, film is a medium employed to deliberately facilitate our reinterpretation of space.

Design workshop. Stage 3

The third stage of the workshop returns once again to the use of storyboards. However, instead of being employed for purely cinematic analysis they are now used in a way that more directly facilitates spatial design. This is done by setting the scene examined earlier in the site of the design project. Consequently, what we have here is the mutiny scene from *The Battleship Potemkin* now visualised and storyboarded in the Cebada Market (Figure 10).
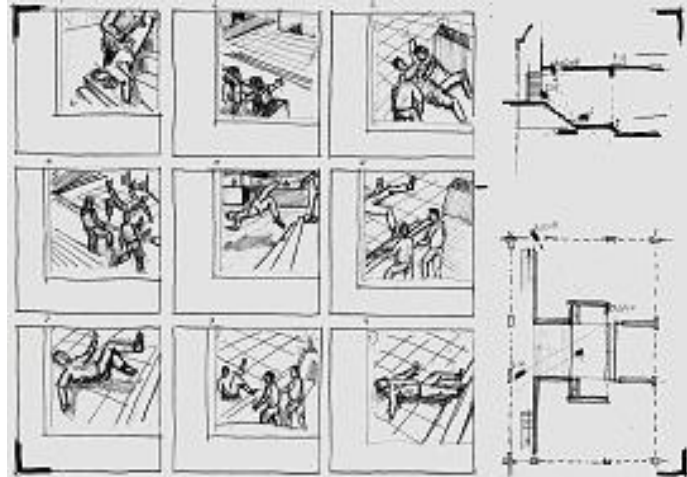

Figure 10: Storyboard with plan and section

In this process the designer is obliged to examine this new architectural setting for particular cinematographic characteristics that would facilitate the recreation of the scene in a storyboard format. Consequently, just as occurred earlier with the employment of the video camera to record the building, the use of storyboards directs the attention of the designer to the site's cinematographic rather than architectural qualities.

In this specific case the entrance zone was identified. Here there are a series of platforms at different levels which are interconnected by a number of individual staircases. This relatively irregular spatial distribution facilitates the selection of multiple camera view points, as well as the possible recreation of the dynamic choreography realised by the actors (Figures 11 and 12).
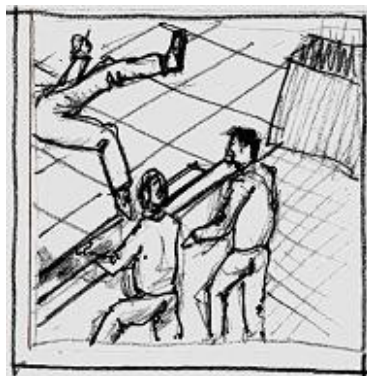

Figure 11: Storyboard close up 1   **Figure 12: Storyboard close up 2**

These storyboards are done by one group of participants whilst others design different storyboards based on alternative scenes from other films. Together, they result in the identification of quite different spatial and cinematographic characteristics depending upon the nature of the scene in question. What occurs at this point then is a continuation of the process of *defamiliarisation* that obliges the designer to look at an architectural space from a cinematographic perspective. However, it goes beyond the mere visual recording of those cinematographic characteristics on film and begins to consider their application in the context of given physical actions and movements. This move towards considering the visual and physical questions is an important step in the gradual broaching of purely architectural design proposals that follow.

Design workshop. Stage 4

Before these purely architectural questions are introduced however, there is one more storyboard made in the fourth stage of the workshop. On this occasion, the storyboard is not based on a scene from a film, but rather a typical event related to the architectural program selected for the workshop. In the year of the examples used here, the architectural project was the design of a small sports stadium / centre. Consequently, each participant of the workshop was asked to identify one typical action associated with that type of project and to subsequently make a storyboard of that action set in the site.

The example shown here centres of the moment in which two basketball teams leave their respective changing rooms and walk onto the court together. It is based on a continuous style of filming and consequently employs long takes and a moving camera. The students document the proposed movements of the camera in plan and section and thus consider the space from a cinematographic perspective one more time.
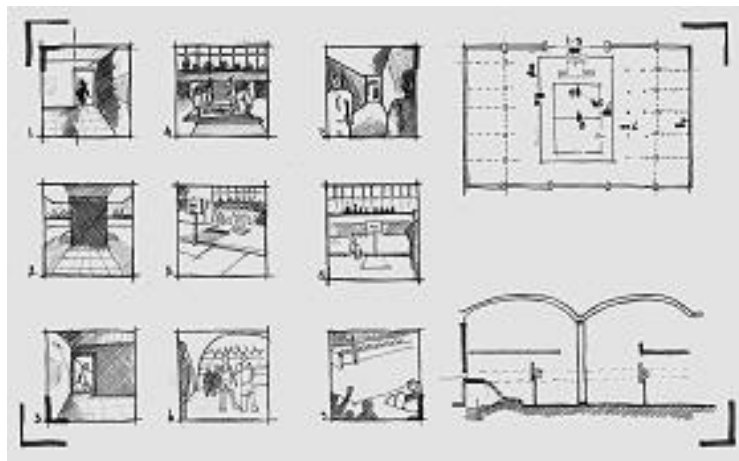
Figure 13: Storyboard of selected "action"

These storyboards are set in the site of the design project and deal with actions typical of the type of project in question (Figure 13)**.** As a result, it is inevitable that some of the ideas contained in them will be directly applicable to the designs proper that follow. For example, we see the use of frontal and back lighting effects that are later introduced by students into their designs proper (Figure 14**).** Similarly, there is a proposal in the storyboard for the use of a path marked out on the floor by a change in floor finish. Intended to emphasise continual movement it was applied easily in the real proposal that followed. Both these examples would fit perfectly in the category of "aesthetic factors" described earlier, given that they are equally applicable in both an architectural space and a cinematographic scene. They are thus, indicative of the close relationship developed between cinematographic exercises and architectural projects in this stage of the workshop.

Figure 14: Proposed backlighting effect

Design workshop. Stage 5

In Stage Five participants pass from storyboards to actual design proposals for the project. As mentioned previously, in the case of these examples the project chosen was a small sports stadium / centre. Essentially, participants work in standard ways at this point and the aim is to find multiple ways of incorporating ideas, concepts and visual effects studied in film into the spatial design proposals put forward.

At its most basic level this may involve the repeated use of a lighting effect or floor finish design as just described. However, more interestingly, it may involve the creation of visual effects that require a certain level of abstraction in their transition from one medium to another. In some cases it may even involve the employment of cinematic spatial concepts as models for architectural spatial planning. In running this workshop the author has identified that most of the design proposals use one or other of these strategies. Consequently, they have been categorised into what is referred to as three strategies for transference; three ways in which cinematic ideas can be incorporated into architectural design. The first of these categories is called the strategy of *direct incorporation* and includes what we have just described.

By way of contrast, the second category identified involves a more creative manipulation of cinematic effects. It is referred to as the *strategy of analogy*. (Cairns, 2007: 217) In the framework of this model one finds architectural effects based on cinematographic techniques such as the long take, the cut and, as in the example seen below, the fade. Simply explained, the fade involves the closing and / or opening of a scene with an image that disappears or emerges from a blackened screen. It is incorporated into the proposals put forward in this workshop through the use of glass walls that are partly transparent and partly opaque (Figure 15).
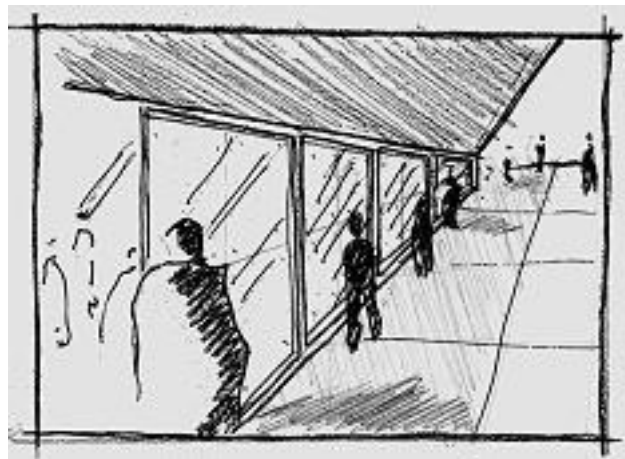

Figure 15: The fade reproduced as an architectural effect

At one end of the wall the proposal is to use opaque glass. However, along its length it gradually lightens until at the near end it becomes completely transparent. Thus, the idea is to gradually reveal the interior as people move along the wall and prepare themselves to enter the stadium. Just as a cinematic scene is gradually revealed by the use of an introductory fade, here the building interior is revealed through a gradual change in transparency. Other design features that follow this *strategy of analogy* include the incorporation of the cinematic cut and the dissolve, both of which produce interesting spatial effects when applied by spatial designers.

At an even more abstract level there are examples in these design proposals of the third category of approaches identified by the author; the conceptual *strategy of transference*. (Cairns 2007: 220) Here the cinematic effects translated into architectural design tend to be spatial concepts rather than visual effects. They consequently require an even greater level of adaptation or abstraction in order to be carried out effectively. Their effect on the architectural project is far more fundamental.

In the example shown here the students have used the filming style of Jean Renoir as inspiration for the design of a lobby space in which various actions take place in different depth planes (Figure 16). The entrance zone of the stadium proposal is thin and long. The linearity of this space is emphasised

by the surface decoration of the walls but also by the lineal disposition of the access ramps placed along its side. These ramps add to the dynamism of the initial view, underline the lineal perspective of the space and optically unify its different depth planes. The cinematic references at play are various.
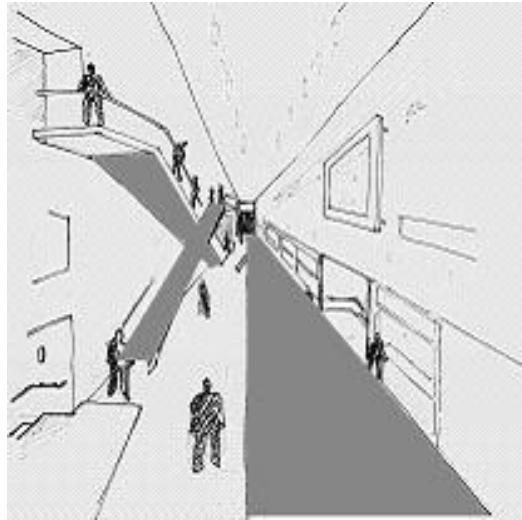

Figure 16: A deep space composition inspired by Jean Renoir

Jean Renoir was a director that tended to film using long takes. As discussed previously with regard to *Citizen Kane*, this filming style obliges directors to use deep space compositions in which he could organise actions in different depth planes. This clearly happens here with a spectator at one end of the entrance zone seeing people enter in the background of the image.

However, Renoir also tended to control the movements of his actors in very specific ways; coordinating lineal movements from fore to background in great detail for example. This characteristic was central to the decision to position the ground floor entrance doors and the upper level access points to the upper stands at opposite ends of the space. This architectural spatial arrangement is intended to instigate a series of continuous and lineal movement vectors as spectators are obliged to journey along the entire length of this central zone in opposing but parallel directions.

The clear influence of Renoir on the spatial design of this proposal is continued in the design proposal of the stands themselves. Here we see an approach to spatial organisation that radically changes the standard practices of this type of project. In cinematographic terms one of the most notable and fundamental aspects of Renoir's filming was his use of a 360 degree movement style for the camera; instead of limiting the camera to a position on one side of the action, the camera is free to move all around it. (Bordwell 1999: 280) It is an approach that produces a much more fluid and holistic sense of space and action (Figures 17 and 18).
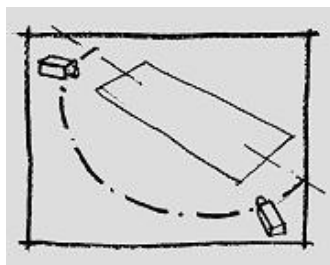

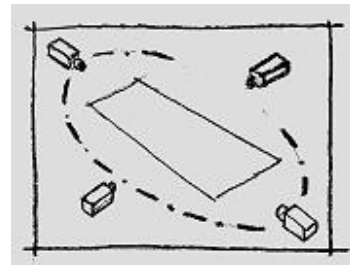**Figure 17: 180° camera movement (right)**   **Figure 18: 360° camera movement (left)**

Transposed to small scale stadium design this idea involves inverting one of the standard characteristics of this building type; its division of seating into sections that are separated by vertical access routes. This project proposes separating them by horizontal access routes so that spectators are not restricted to one side of the action but can walk around the entire perimeter of the court without spatial interruption (Figures 19 and 20).
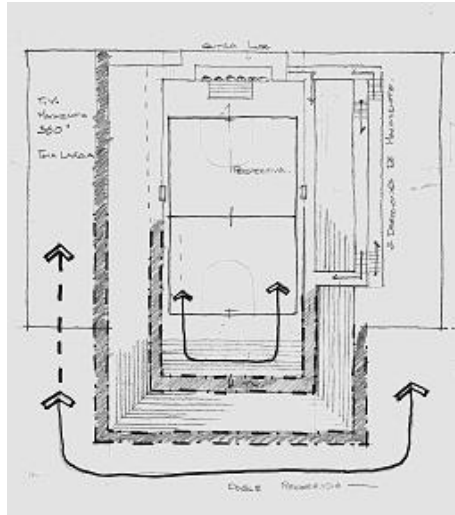
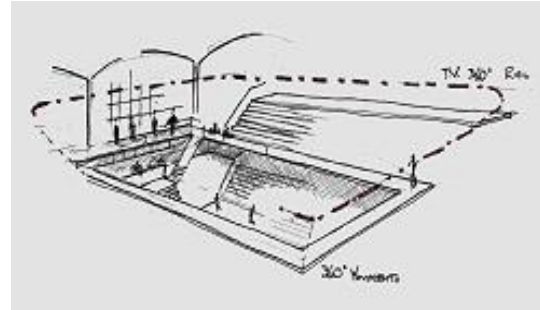**Figure 19: Stands divided horizontally (right)**   **Figure 20: 360°movement (left)**

Clearly, this design idea reveals an understanding of spatial sequence, duration of view and movement that goes beyond considering films as sources of ideas for illumination or isolated optical tricks. In fact, it could be argued that what ideas such as these actually reveal is the employment of *cinematographic spatial models* as templates for architectural design itself. Cinema is used as a source of spatial concepts.

Conclusion

The design ideas put forward in a workshop like that documented here would require a lot of additional work to resolve their inevitable contradictions and problems. However, they do represent initial ideas on how spatial cinematographic concepts may inform, and possibly enrich, spatial design. In some cases this does not seem to lead to any great transformation of normal architectural thinking. However, in others the potential for far more radical reconsiderations of standard spatial approaches is clearly evident.

Whether of major or minor impact however, one thing that all these ideas have in common is that they stem from the use of cinema as a tool through which to reconsider spatial perception. Taken to an extreme, or perhaps just its inevitable conclusion, such practices could actually lead to a change in the mental frameworks we apply when conceiving space. If such consequences did eventually result from the use of film in design they would represent the most important contribution an external medium can possibly make to the spatial design disciplines including urban design, architecture and interior design.

Acknowledgements

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Short Biography

Dr Graham Cairns, is the Head of Architecture and Interior Design at Writtle School of Design, Essex (UK). He has taught at various Universities in Spain and the UK and has worked in architectural studios in London and Hong Kong. Prior to working in education he also ran a performing arts group called *Hybrid Artworks* and specialised in video installation and performance writing. He has presented papers at numerous international conferences and has written articles on film, architecture, interior design and advertising for a variety of publications. He has 2 books: *The Architect Behind the Camera; a spatial vision of cinema*, Abada Editores, Madrid, 2007. *Deciphering Art, Architecture and Advertising; selling to the sophisticated Consumer*, Libri, Publishing, London. 2010.