University of Waterloo | School of Architecture Arch 292: Fall 2019

THE FUNCTION OF AFFECT: Durational Space In Architecture And Cinema

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Studio hours: Mondays and Thursdays, 9.30am-1:00pm and 2:00-5.30pm
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Three-dimensional space, inhabited and set in virtual motion by the body, has formed the material of modern architecture; its representation in two dimensions, with the added dimension of time, has been the work of film. Both arts have been inextricably linked since the end of the nineteenth century: architects have taken their cue from film, filmmakers from architects. Sigfried Giedion coined the triplet "space, time, and architecture"; Le Corbusier and Sergei Eisenstein served as the emblematic duo in this cross-medium relationship; Walter Benjamin sealed the marriage as a product of modern technological reproduction; and psychology reinforced it with the concept of mental projection. Architecture now operated as a psychic mechanism, constructing its subjects in time and space.[1]

Motion pictures move not only through time and space or narrative development; they move also through inner space. Film, like architecture, enables us to journey through the space of the imagination, the sites of memory, and the topography of affects. It is this inner motion, a mental itinerary, that links film to architecture and design and makes cinema the art that is closest to architecture. Architecture and film are not only sites of movement, but also "moving" sites".[2]

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[1] Anthony Vidler, Forward to Public Intimacy, Architecture And The Visual Arts, Giuliana Bruno, 2007 Massachusetts Institute of Technology, p IX

[2] Giuliana Bruno, Pleats of Matter, Folds of the Soul in Afterimages of Gilles Deleuze's Film Philosophy, DN Rodowick editor, p 215

Introduction
Have you noticed how great cinema puts you on alert, stirs your mind and fills you with anticipation? Have you noticed how your mood depends on the weather - the silence before the storm or the blaze of the blizzard? The work of most good architects arises from some especially affecting experience they have undergone in some place at some time; experience which is transformed through imagination and the long disciplines that awaken creativity and give form to our architectural lives; the deeper the reach, the more encompassing the vision; the greater the synthesis the more lively the response.

Cinema and Architecture
As early as 1938 the great Russian filmmaker Sergei Eisenstein in his seminal essay *"Montage and Architecture"* stated:

> Painting has remained incapable of fixing the total representation of a phenomenon in its full visual multidimensionality. (There have been numberless attempts to do this). Only the film camera has solved the problem of doing this on a flat surface, but its undoubted ancestor in this capability is architecture. (Sergei M.Eisenstein, "Montage and Architecture"(c.1937) with an introduction by Yve-Alain Bois, Assemblage, no. 10 (1989): 111–131).

What is pivotal about Eisenstein's essay is not only his recognition of the primacy of architecture in relation to the cinema but he reminds us that architecture is not only a spatial art but also an art of time. We encounter and perceive architecture while on the move. All our senses are engaged by the multiple effects of moving through and within the architectural ensemble; rising or descending, in darkness or in light, in terror or in awe, each surface, artifact or space transfers its qualities to a moving, perceiving subject.

Le Corbusier inventor of the architectural concept of "promenade" was a great admirer of Eisenstein and in the text in his *Oeuvres completès,* accompanying his plans for the Villa Savoye (1929-31), he describes the spatiotemporal itinerary through the house as a cinematic sequence:

> Arab architecture has much to teach us. It is appreciated *while on the move,* with one's feet; it is while walking, moving from one place to another, that one sees how the arrangements of the architecture develop. This is a principle contrary to Baroque architecture.... In this house [the Villa Savoye], we are dealing with a true architectural promenade, offering constantly varied form, unexpected, sometimes astonishing aspects. It is interesting to obtain so much diversity when one has, for example, allowed from the standpoint of construction an absolutely rigorous pattern of posts and beams. (Le Corbusier, *Oeuvres completès,* vol. II, Zurich, Editions d'architecture, 1964 p. 24. Cited in Yve-Alain Bois; John Shepley, "A Picturesque Stroll around "Clara-Clara" *October,* Vol. 29. (Summer, 1984), p 56

In this early and seminal work the choreography of movement through the villa is primary and expressed through the effects of parallax experienced in the unfolding sequences of flickering space as one moves from the entrance up the sectional cut of the ramp through the column grid and to the roof terrace where the journey culminates in the horizontal film strip windows framing the landscape cinematically.

This fascination with cinema and the dynamic effects of continuously unfolding spaces and sequences of space, unexpected juxtapositions, changes in direction, surprising vistas, programmatic overlaps and intersections, has continued to inform the conceptual and experiential modes and procedures that have inspired and informed architects from Guy Debord and the Situationists (who recognized the origins of the dérive in the architectural promenade) to Bernard Tschumi, Rem Koolhaas, Zaha Hadid, Jean Nouvelle and many others.

Both architecture and cinema build the conditions in which settings and scenarios are played out through the manipulation of space, time and event but the spatiality and temporality of cinema and architecture are radically different. Time in architecture unfolds much more slowly, is primarily measured by the moods and rhythms of weather, by the passage of natural light through its articulated membranes and across its

immobile surfaces. Nothing is less characteristically cinematic than immobility and slow, existential time. Nothing is less architectonic than switching between disparate places and multiple timeframes with great velocity. It is precisely with and between these apparent differences and intensities that we will work, pushing normative boundaries and opening up new territories of the architectural imagination. We want to explode static views of architecture. Rather than representing something we want to realize architecture's potential to create its own powerful movements and temporalities.

The Studio

The Mirror, Andrei Tarkovsky

> "When music cries, it is humanity, it is the whole of nature which cries with it. Truly speaking, it does not introduce these feelings in us; it introduces us rather into them, like the passers-by that might be nudged in a dance." (Henri Bergson Cited in Gilles Deleuze, Bergsonism, Zone Books, 1988 p. 110.)

Our ambition in this studio is that you might be nudged into a dance with architecture; an architecture of your imagination and making, and that we too, as passers-by, might be nudged in this dance. We all need mediators as Gilles Deleuze asserts, something to set us in motion and, at the outset of this studio it is cinema that will be deployed to put us in orbit. Film mobilizes temporal and spatial modes of perception as does architecture but whereas film cannot but be conceived in time, architecture rarely fully engages the effects of temporal conception in its making.

Consider for a moment the still image of the *Atlas of Cinematic Affects* (see P1 assignment). Set its images in motion and they become analogs for the thinking-feeling we experience in an intensive and affective encounter with an architecture that moves us. Their dynamic forces, mobile trajectories and material qualities, which only appear over time, will initiate the first exercise of the studio.

These shape-shifting cinematic formations moving through our inner and outer worlds will be harnessed and transformed in the making of an architectural assemblage. Through design we will come to know these sequences intimately, and discover what they can do; their variable speeds and slowness, hardness and softness, coldness or heat, gravity or weightlessness and the atmosphere that the rhythmic interplay between them might create for a living subject. As you advance through the exercises you will begin to conceive and perceive architecture dynamically, in time, and as living substance in relational interplay with your sensing.

The initiation of subsequent and related projects in the Studio will follow a similar course, developing through intense investigations in physical modeling, drawing, and a range of analogue and digital media best suited to distilling the poetic core of fundamental questions emerging from the studio and from the architectural passions and predilections of each of the participants. Our ambition is to liberate architecture from the shackles of convention while opening new territories of the formal and material imagination. This will be accomplished with a cross-disciplinary focus, drawing not only on the means and methods of architecture and the plastic arts, but on the temporal arts of music and dance with a primary

focus on cinema, for cinema is the art form closest to Architecture.

Each of the studio projects, launched by distinct provocations, will ramify with increasing density and specificity as the term progresses, concluding in a final project: a dynamic cultural assemblage, drawn and synthesized from the most cogent discoveries along the way. We imagine a great diversity of work across the studio, and a range of scales (temporal and spatial) issuing from both the intense focus and discipline of the studio and through the individual investment, insights and discoveries of each of the participants. The studio will include a major installation, exhibition and celebration at *Bridge*.

Course Requirements:
Project 1: Spatial Promenade and the Durational Section- 15% (Individual, 3 weeks)
Project 2: Case Study: Promenade – 10% (Individual 2 weeks)
Project 3: Heterotopic Assemblage – 20% (Groups of 5, 3 weeks)
Project 4: The Intensive City – 55% (Individual, 5 weeks)

Project 1: Spatial Promenade and the Durational Section:
Assignment 1 is an exploration of space and time as inextricable forces in how we perceive reality and how we design and engage with buildings. As the process of thinking, perceiving and sensing inescapably occurs in time, even the most abstract idea has its "thickness in time". Consequently, every 3D object, spatial experience or architectural space cannot be discussed as having only three dimensions. This is an analytical and compositional exercise forging generative resonances between architecture and cinema in the creation of a moving architectural promenade traversing diverse programmes and events.

Project 2: Field Trip: Spaces and Sequences and the Heterotopia of Nuit Blanch:
While Project 1 spatializes and materializes cinematic time, movement and sensation architecturally, Project 2 explores the architectural promenade in a noteworthy building in Toronto and renders it cinematically through drawing and photography. The field trip also takes you into the night and into the heterotopic experience of Nuit Blanche 2019. The normative encounters, everyday practices and programs within the City are temporarily challenged, offering new possibilities for how the city might be imagined, transformed and experienced. Selected buildings will be presented and discussed prior to the field trip. Students will choose and analyze a sequence of spaces in one of these buildings, will document it in real time during the field trip and will then prepare a precisely constructed spatiotemporal cartography of a chosen sequence.

Project 3: Heterotopic Assemblage
P1 and P2 investigate the structure of space in relation to time, movement and inhabitation. Together the two introductory projects form a bridge to P3, in preparation for re-imagining a larger architectural assemblage within a future City. How does the heterotopic city affect our perception of space and how do its inhabitants reciprocally affect the city? This is a Group project (5 persons per group) in which collective social imagination and architectural intelligence are brought to bear on the question "How might we live/ How might we build in *The City of Today Tomorrow*. Fourteen metropolitan visions deploying moving light and both digital and analogue fabrication will be produced and suspended in the black box of Bridge Gallery and will culminate in an all school exhibition and celebration.

Project 4: The Intensive City
Project 4 challenges students to question and investigate a fragment of the city as a four-dimensional effector. The semblance of metropolitan spaces and events forged in P3 will form the "programmatic generator" of the final project – a speculative cultural intervention in *The City of Today Tomorrow.* P4 is uniquely sensitive to both the scale of the city as it is to the tactile scale of the building assembly. The four-dimensional effector is both a carefully constructed architectural artifact as it is a catalyst for affective encounter and occupation.

Course/Teaching Objectives:

1. Develop a rigorous and creative engagement with theorists and makers (architects, painters, sculptors, filmmakers) whose practices and methods open up new territories of the formal, temporal and material imagination.

2. Explore processes of design thinking and making predicated on relational, transversal and networked procedures.

3. Explore the alchemy of form, space and matter through time.

4. Develop a compelling and speculative approach to programs and events and how these conceptual and affective forces might be enhanced through the architectural frame.

5. Draw correspondences and make visual reference to related contemporary works in architecture, cinema and the visual arts, with special emphasis on resonances between spaces and events.

6. Demonstrate the affective capacities of the above through an assemblage of associated images and text, model photographs, schematic diagrams, scaled drawings and vignettes, and through whatever graphic means best communicate ambitions and intentions.

7. Develop an initial understanding of cinematic technique, terms of reference, and critical works that will enrich the architectural imagination.

8. Develop cyclical workflows and methods of formal investigation that oscillate between digital and physical media.

9. Provide a tangible method for working with affect in architectural composition.

10. Participate actively in seminar and studio discussions at a high level, foster critical debate and inquiry and hone the art of concise oral and visual presentation.

11. The student must demonstrate an ability to articulate a design process grounded in theory and practice, an understanding of design principles and methods, and the critical analysis of architectural precedents.

12. The student must demonstrate an ability to apply design theories, methods, and precedents to the conception, configuration, and design of buildings, spaces, building elements, and tectonic components.

13. The student must demonstrate an ability to use the broad range of design tools available to the architectural discipline, including a range of techniques for two- dimensional and three-dimensional representation, computational design, modeling, simulation, and fabrication.

14. The student must demonstrate an ability to assess, as an integral part of design, the appropriate combinations of materials, components, and assemblies in the development of detailed architectural elements through drawing, modeling, and/or full-scale prototypes.

15. The student must demonstrate an ability to document and present the outcome of a design project using the broad range of architectural media, including documentation for the purposes of construction, drawings, and specifications.

Course Outcomes:

At the end of the course students should be able to/have:

1.   A developed understanding of spatial sequencing in Architecture. This includes an understanding of physical mobility through multiple program areas, as well as visual and physical inter-dependencies between different programs.

2.   Introductory understanding of issues of accessibility, wayfinding and barrier free design. Gain understanding of the impact spatial planning has on physical mobility and multi-sensorial perception (haptic, acoustic, temperature, smell).

3.   Applied understanding of spatial and formal hierarchy between spaces, light conditions and materiality in relation to their corresponding architectural function and programmatic importance.

4.   Apply theories and concepts of lighting and building illumination, both natural and artificial, to create atmospheric effects. This includes and applied understanding of color temperature, light scattering, directed light, diffused light and occlusion.

5.   Demonstrated understanding of human scale. This includes both the relation between proportional elements in a composition and the relation between the human body and the spaces it occupies both physically and visually.

6.   Introductory understanding of urban scale and the relation between buildings and their sites.

7.   Understand architectural notations for accurate representation of a sectional drawing, including two-dimensional sectional drawings and sectional perspectives. This includes accurate architectural representation of building assemblies, building masses and urban sections at appropriate drawing scales.

8.   Introductory understanding of cinematic technique, terms of reference, and critical works that will enrich architectural design sensibilities and forms of expression.

9.   Introductory understanding of the role that spatial sequencing and spatial composition have in articulating complex conceptual ideas in film, painting, sculpture and film.

10.   Apply new methods, tools and techniques for concept development commonly used in various design practices (stage and installation design, film, product design, art, sculpture, etc.).

11.   Applied understanding of the role of iterative prototyping, modelling and drawing as an integral component of design development. This also includes a critical oscillation between both digital and physical methods.

12.   Develop skills in physical prototyping and visual representation that can effectively convey both formal and spatial ideas as well as more complex conceptual ideas (affective capacities, atmosphere, projected and actual materiality, etc.).

Readings will be provided with the assignments**.**

Evaluation

Each assignment throughout the term will be assessed on the following basis:

- Ambition, clarity and appropriateness of the ideas addressed within the work.
- Architectural quality and the technical resolution of the proposition.
- Integrity in the development of the project from initial to final phase.
- Precision and craft of physical artifacts created.
- The effectiveness and the completeness of project documentation and its capacity to communicate the project's intentions in the author's absence.

Deadlines and extensions: Arch 292 project deadlines can be extended only in cases of illness or incapacity. Requests for such extensions must be made *before* the project deadline, as soon as is possible, using the request for extension form available from the Undergraduate Student Services Coordinator – Colleen Richter, accompanied by a medical certificate when necessary, and submitted to the Arch 292 Coordinator. Students must complete all projects, and obtain a passing average in order to receive credit for this course. Because of the difficulty of evaluating individual contributions in the group work in Project 3, students will all receive the same grade. A failing grade (less than 50%) in Project 4 will constitute a failing grade for the term.

Late Submission Policy

Assignments that are handed in late will receive an initial penalty of 10% on the first calendar day late and a 5% penalty per calendar day thereafter. After 5 calendar days, the assignment will receive a 0%. Only in the case of a justified medical or personal reason will these penalties be waived, and only if these have been officially submitted to the Undergraduate Student Services Coordinator and accepted by the Undergraduate Office.

Days Late	Deduction
1	10%
2	15%
3	20%
4	25%
5	30%
6+	100%

Digital Submissions

Students who choose to produce digital drawings for any portion of a project's submission requirements, must make early paper backups of their drawings. Last minute printing problems, lost or corrupt files will not be accepted as an excuse for late project submissions. All work in this course must be presented in hard copy form regardless of one's preferred working methodology.
Students should ensure that hard copy drawings and models are available for desk reviews. Digital files are required to accompany all major project submissions regardless of their original form. Unless otherwise specified, they must be accompanied by paper printouts or formatted physical panels. Specific lists of the requirements of each project submission will be included with individual project handouts. Digital submissions will be required as a means to archive the work of individual students and groups throughout the term. All files must be submitted in readable PDF and high-resolution JPG formats to LEARN.

Daily Schedule:
Arch 292 is scheduled as follows: Mondays: 9:30-1:00; 2:00-5:30 pm.Thursdays: 9:30-1:00; 2:00-5:30 pm. Students are required to be working in the studio during the above scheduled hours. Repeated absence may be sufficient reason to request withdrawal from the course. Students are also required to attend and participate in all scheduled reviews, and expected to attend all guest lectures and other events.

Studio Culture
The School of Architecture building is open 24 hours a day, seven days a week, which allows students to execute their design work in the studio. Working in isolation inevitably undermines the potential of the collective environment of the studio, and is typically detrimental to the quality of a student's work. The development of a healthy studio culture involves intensive production as well as a critical and speculative dialogue with regard to their own work and the work of others. The studio must be a safe and inclusive environment in which all students can work without unnecessary distraction. Disruptive behavior is strictly forbidden. Headphones must be used if a student wishes to listen to music or other electronic media. The student lounge, gym and basketball court are available to any student who wishes to engage in activities unrelated to studio work.

Reviews
Reviews are not evaluations but rather investigations and debates. Evaluation will take place in confidential sessions by the studio faculty working as a group, in which all critical aspects of each project will be considered. It is crucial that each student, not only participate in their own review, but also in the reviews of the work of fellow students. Participation in class reviews and seminars is mandatory. Video recorders and audio recording devices should not be utilized in review sessions without the approval of the course instructor(s) present. Students are encouraged to record the criticism they receive from faculty members and guest critics through the assistance of a classmate who can take notes regarding the content of the conversation on one's behalf. Desk reviews are not objective debates or evaluations, but opportunities to receive advice specific to each student and each project. The project and the decisions made are ultimately the student's responsibility.

Communication with studio coordinator and faculty
During the course of the term, faculty may need to send communications to ARCH 292 students. It is required that each student confirms their current active email address with the Undergraduate Student Service Coordinator during the first week of class. Students may receive general communications from the coordinators regarding studio business by e-mail. It is expected that students check their email daily and that once material has been sent it has been officially received. Copies of all official correspondence will be archived for future reference. Email correspondence directed to individuals may be sent either to their individual accounts, or through LEARN, whereas formal class-wide correspondence will be sent through LEARN. As a result students should ensure that their LEARN account is active. Over the course of the term, students may receive less formal correspondence from individual faculty members regarding various issues pertaining to individual projects, review schedules etc. We do however ask that students do not use email as a means of communicating with faculty members regarding their studio projects or personal issues. Discussions concerning individual projects or any other matter requiring direction, confirmation or advice from faculty should occur during scheduled studio hours unless previously discussed with the instructor, or scheduled at a separate time with the studio coordinators.

Faculty Lectures:

September 5 –Dereck Revington – The Function Of Affect: Durational Space In Architecture and Cinema
September 26 – Dereck Revington Intro P2_ Mike Fohring Lecture
October 03 – Dereck Revington Intro P3_Tracy Winton Lecture
October 07 – Margaret Krawecka Lecture
November 04 – Dereck Revington intro P4_ Christie Pearson Lecture
November 14 – David Correa Lecture

ARCH 292 Schedule + Room Bookings
FALL 2019

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
SEPTEMBER	1	2	3	4	5 **Lecture 01** **P1 Intro** 11:30-1:30, **Lecture Hall** **Seminars** 1:30-5:30, **Loft** (2 parallel sessions)	6	7
	8	9 **P1.1** **Seminars** 9:30 - 5:30, **Loft** **(or Loft Gallery)** 3 parallel sessions Groups of 5	10	11	12 **Seminars** 9:30 - 5:30, **Loft** **(or Loft Gallery)** 3 parallel sessions Groups of 5	13	14
	15	16 **P1.2** **Discussion** 9:30-5:30, **Loft** 3 parallel sessions Groups of 5	17	18	19 **Seminars** 9:30-5:30, Studio Individual	20	21
	22	23 **Seminars** 9:30-5:30, Studio Individual	24	25	26 **Lecture 02** **P2 Intro** 9:30-12:30 **Lecture Hall** **Seminars** 1:30-5:30, **Loft** Student pairs	27	28
OCTOBER	29	30 **P1.2 REVIEWS** 9:30-5:30, **Loft**	1	2	3 **Lecture 03 P3 Intro** 9:30-11:00, **Lecture Hall** 11:00-5:00, Grading Loft student work on assignment **Nuit Blanche Meeting** 5:30pm, **Loft**	4	5 **NUIT BLANCHE** FIELD TRIP CASE STUDY **TORONTO**
	6	7 **Lecture 03** 9:30-11:00, **Lecture Hall** 11:00-5:30, Grading **Loft or Loft Gallery** student work on assignment	8	9	10 **P2 REVIEWS** 9:30-5:30, **Loft**	11	12
	13	14 Thanksgiving Day	15 *Study day*	16 *Study day*	17 *No Studio*	18 *No Studio*	19
	20	21 **Instl Briefing:** 9:30-11:00 **Seminars** 1:30-5:30, Studio/Bridge Installation Plan 5 parallel sessions **Loft or Loft Gallery**	22	23	24 **Seminars** 9:30-5:30, Loft Refinement of digital and physical models 5 parallel sessions **Loft or Loft Gallery**	25	26 **Bridge install**

NOVEMBER						
27	28 Installation Mockup and install 9:30-5:30, Bridge	29	30 installation documentation Due:10pm	31 BLACK BOX P3 REVIEWS Exhibition/Presentation 9:30-5:30, Bridge 6:00 Party	1 Installation take down	2
3 P3 Final Documentation edit Due:10pm	4 **Lecture 04** **P4 Intro** 9:30-12:30, Lecture Hall **Seminars** 1:30-5:30, Loft 5 parallel sessions	5	6	7 **Pin-Up** **Seminars** 9:30-5:30, Loft 5 parallel sessions Groups of 3	8	9
10	11 **Desk Crits** 9:30-5:30 Studio	12	13	14 **Lecture 05** 9:30-11:00, Lecture Hall **Seminars** 11:30-5:30, Studio	15	16
17	18 **Desk Crits** 9:30-5:30 Studio	19	20	21 **P3 INTERIM REVIEW** 9:30-5:30, Loft	22	23
24	25 **Class Meeting** 9:30-10:30 Lecture Hall **Desk Crits** 10:30-5:30, Studio	26	27	28 **Desk Crits** 9:30-5:30 Studio	29	30
DECEMBER						
1	2 **Desk Crits** 9:30-5:30 Studio	3 Last day of classes	4	5 **Desk Crits** 9:30-5:30 Studio **P3 FINAL DIGITAL SUBMISSION** 6:00pm	6	7
8	9 **FINAL REVIEWS** **Loft**	10 **FINAL REVIEWS** **Loft**	11	12	13	14
15	16	17	18	19	20	21 **LAST DAY OF EXAMS**
22	23	24	25	26	27	28