cinematic architecture

a research plan

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From a description of the location and appearance of rivers, trees, buildings, people, all would seem common. The Aare bends to the east, is sprinkled with boats carrying potatoes and sugar beets. Arolla pines dot the foothills of the Alps, the trees' cone-laden branches curving upwards like arms of a candelabrum. Three-storey houses with red-tiled roofs and dormer windows sit quietly on Aarstrasse, overlooking the river.

… But seen through the eyes of any one person the scene is quite different. For example, one woman sitting on the banks of the Aare sees the boats pass by at great speed, as if moving on skates across ice. To another, the boats appear sluggish, barely rounding the bend in the whole of the afternoon. A man standing on Aarstrasse looks at the river to discover that the boats travel first forwards, then backwards.

… In a world where time is a sense, like sight or like taste, a sequence of episodes may be quick or may be slow, dim or intense, salty or sweet, causal or without cause, orderly or random, depending on the prior history of the viewer. Philosophers sit in cafés on Amthausgasse and argue whether time really exists outside human perception. Who can say if an event happens fast or slow, causally or without cause, in the past or the future? Who can say if events happen at all?

Part from *Einsteins Dreams (2004)*
Alan Lightman

EXPERIENCING SPACE

In the fictional book *Einstein's Dream* (2004), written by Alan Lightman, Einstein - before publishing his relativity theory - imagines how different concepts of time would lead to different material worlds. It describes in different chapters how the perception of time is always entwined with the perception of place. In a world where time is a sense, there is no objective way to perceive reality. Only when a person is born 'time-death', their perception of place would be absolute. They would know "the precise placement of trees in the spring, the shape of snow on the Alps, the angle of sun on a church, the position of rivers, the location of moss, the pattern of birds in a flock. Yet time-deaf are unable to speak what they know. For speech needs a sequence of words, spoken in time." (A. Lightman, 2004)

So, since we do perceive time, our perception of place is always colored. Our senses feed us with a view, sound, smell taste and touch, through which we feel, think, interpret and imagine. Although mechanical time always moves with the same speed, we do not experience things linearly. Time bends along with how we engage with the things we encounter, manipulating our perception. It flew by when I was reading a book last night, now it seems to crawl while I am at work.

Architect Juhani Pallasmaa argues in his book *the eyes of the skin* (2012) that architecture is "our primary instrument in relating us with space and time". It helps us to understand the world by defining the boundaries of limitless space and endless time (J. Pallasmaa, 2012). For a long time, the classical Art Memoriae explored a dual memory: one for things (res) and one for words (verba), until it was recognized that the memory complex was one indivisible whole (Autor ad Herenium). This underlined the power of the image and visual perception but also recognized that the world of things cannot be separated from the world of thoughts (H. Kossmann, 2012). In fact, the question of interpretation always connects the two.

It means that the architectural experience always operates between the material world and the world of the mind. Although in western culture, sight is the most dominant, we perceive the world through all of our senses (J. Pallasmaa, 2012). Our eyes, ears, nose, skin and tong detect different intensities, through which we accumulate experience of space. Architect and writer

Klaske Havik, argues in her book *urban literacy* (2015) that other aspects of 'lived' experience remain largely untouched in the architectural discourse. Atmosphere, mood and memory define how we perceive and remember space (K. Havik, 2015). The beginning of understanding more about experiencing space, is to admit that we do not know a lot about it, argues Pascal Schöning. In his essay *manifesto for a cinematic architecture* (2006), he states: "I don't know how to adequately define spatiality, except to state that it lies in the continuous addition and interrelation of all aspects I can perceive".

It is the great paradox of architecture, to give shape to an invisible experience with real materials. The static building only comes to life when people start to interact with it. Architecture slows you down or pushes you towards something, reveals or hides, interrupts or transitions, frames or lets the user explore. It can manipulate our consciousness of time and influence the way we remember space. It is the orchestration of a sequence of intensities, perceived with our senses in time.

But when we, architects, imagine a building we often stick to static floorplan -, section - and axonometric drawings. The drawings are powerful in communicating the physical properties of the building, but they lack movement and action. They have a shortcoming in describing how buildings get perceived. In this research, I want to learn from a medium that by definition deals with this: cinema. Investigating how the dialect of cinema can provide a language for architects to design a sequence of perception in the field of architecture.

CINEMATIC MONTAGE

[When talking about cinema], the word path is not used by chance. Nowadays it is the imaginary path followed by the eye and the varying perceptions of an object that depend on how it appears to the eye. Nowadays it may also be the path followed by the mind across a multiplicity of phenomena, far apart in time and space, gathered in a certain sequence into a single meaningful concept; and these diverse impressions pass in front of an immobile spectator. In the past, however, the opposite was the case: the spectator moved between [a series of] carefully disposed phenomena that he absorbed sequentially with his visual sense.

Sergei Eisenstein, 1938

Sergei Eisenstein, a trained architect and filmmaker, describes in his essay *montage and architecture* (1938) the walk on the Acropolis (image 1) as "one of the most ancient films". Arguing that every shot on the route is subtly composed into a sequence of movement and rhythm. The Greeks designed one of the first cinematic sequences by juxtaposing carefully calculated perspectives at different moments on the route (S. Eisenstein, 1938).

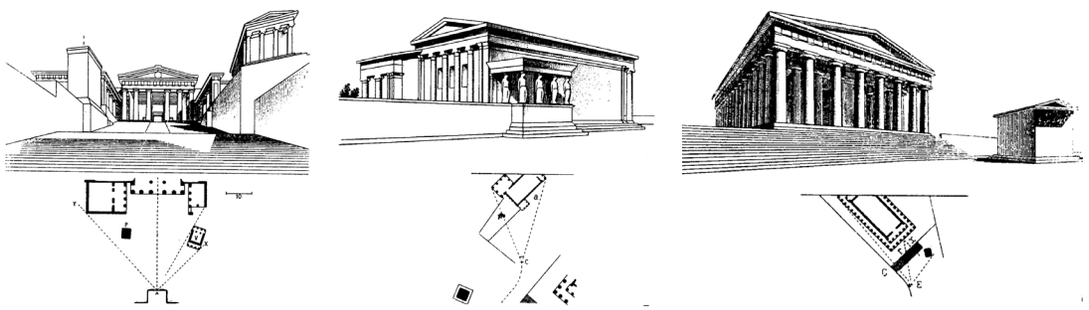

image 1: route of the Acropolis

Eisenstein's belief that montage is the essence of cinema, grew from the shortage of raw film stock in the Soviet Union (D. Borwell, 1972). The Moscow Film school founded in 1919, did not have the means to develop new films and therefore started to make hundreds of re-edits of existing movies. Trying to understand, how changing the structure of a sequence would generate new meaning. Together with influential filmmakers Lev Kuhlesov en

Vselovod Pudovkink, Eisenstein developed methods of montage that affect people's feelings and emotions differently. He called it 'collision' when two different shots are combined. Arguing that cutting not only is an act of 'linking' one moment to another - not just as a tool to drive the story forward in space and time - but to create conflict that evokes new ideas (S. Eisenstein, 1949).

Montage was seen as an abstract way of assembling different pieces into a whole. Suggesting a relation by juxtaposing different fragments. Already the Soviet filmmakers recognized, that montage could be applied outside cinema (D. Borwell, 1972). Composing music, a painting or a sculpture, contains the same compositional questions as the construction of a film sequence. Director Vsevolod Meyerhold describes it as follows: "Given man's power of memory, the existence of two facts in juxtaposition prompts their correlation; no sooner do we begin to recognize this correlation than a composition is born and its ideas begin to assert themselves." (D. Borwell, 1972) In his essay *montage and architecture*, Eisenstein describes the parallel between cinema and architecture, arguing that they both move through the same cultural domain (G. Bruno, 2002).

More explicitly than architecture, film montage takes the reader on a mental walk. With precise notation (script, shot composition, shot length, camera movement, sound, light, etc.), cinema makes relations between fragments explicit (image 1). Designing a sequence of perception, perceived in time. In the next chapter, different methods of film montage get explained, illustrating how cinema manipulates the consciousness of time.

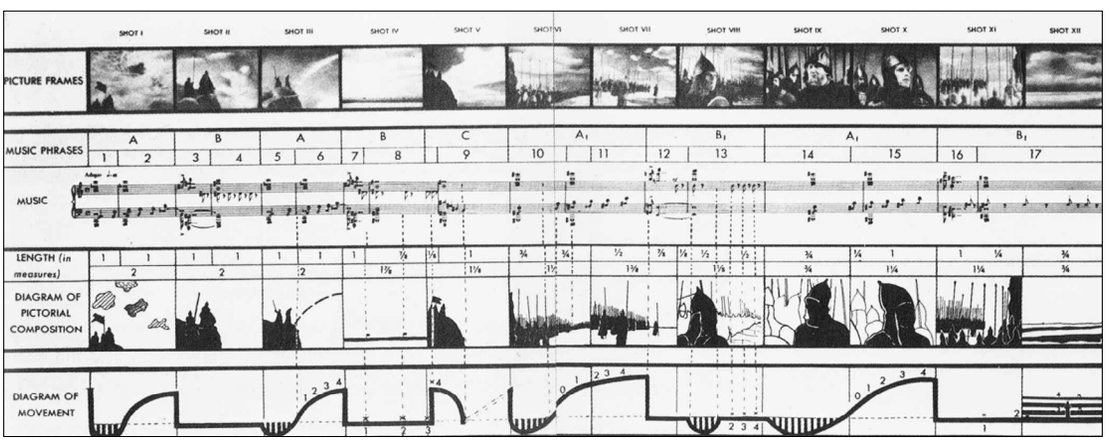

image 2: sequence S. Eisenstein

MANIPULATION OF TIME

The research will be structured around five different concepts of time. In cinema, they get used as methods to manipulate perception. The techniques relate differently to time and the role of the spectator, operating on a spectrum from observing a continuous action in time to complete abstraction, being forced to imagine relations yourself. This framework will be used when talking about architectural and cinematic perception, trying to understand their shared values.

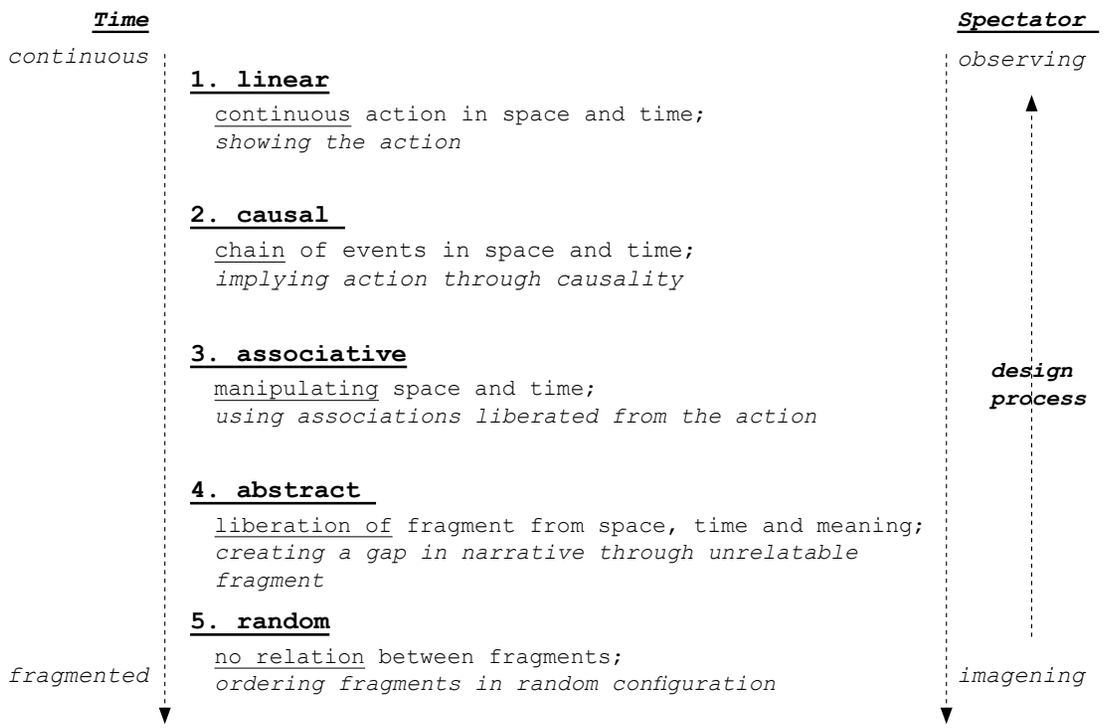

image 3: framework perception

1. LINEAR

This structuring principle is about linear movement in space and time. A continuous scenery is perceived from one perspective. The method is mostly quite literal; the spectator is observing the action, rather than being forced to imagine something.

An example in cinema is Andy Warhol's film *Empire*(1965). The film shows eight hours and five minutes of the same still shot of the empire state building (image 4). The only thing that progresses is time. Warhol reframes reality and puts emphasis on the slow change that we never really notice but happens every day in front of our eyes.

image 4: EMPIRE, Andy Warhol

2. CAUSAL

This technique is not showing the action itself but implies the movement by juxtaposing fragments with a causal relation. The movement is not shown in the fragments but created through connections we make with our minds. The spectator has to engage to understand the narrative that is displayed as a chain of events.

An example of this technique in cinema is a sequence known as the *Kuhlesov effect (1929)*, done by Lev Kuhlesov. A bowl of soup juxtaposed with a man's face implies that he is hungry when shown to the spectators. When replacing the bowl of soup with a child in a coffin, the man is not hungry anymore but is described as sad.

Another example is a sequence from Sergei Eisenstein's film *Battleship Potemkin* (1925). The sequence (image 5) depicts the mass killing of innocent citizens. Without explicitly showing the action of killing, Eisenstein uses causal montage to imply the action. A close-up shot of a woman with glasses is followed by a shot of the same woman with shattered glasses and a bleeding eye, implying she got shot.

image 5: Battleship Potemkin, Sergei Eisenstein

3. ASSOCIATIVE

Associative montage engages the spectator even more with their imagination. It makes use of pieces that are unrelatable to the story in space and time but evoke feelings and emotions through associations and symbols. Although the fragments are not directly relatable to the story, they intensify the spectator's emotional engagement with the narrative.

An example in cinema is a sequence from Eisenstein's movie *Strike (1925)*. The killing of factory workers is cross-cut with the slaughtering of a bull (image 6). The slaughtering of the bull has nothing to do with the main storyline and there is no reason to assume the two events happen simultaneously. Eisenstein himself describes the purpose of the scene as follows: "Though the subjects are different, 'butchering' is the associative link. This made for a powerful emotional intensification of the scene." (S. Eisenstein, 1949)

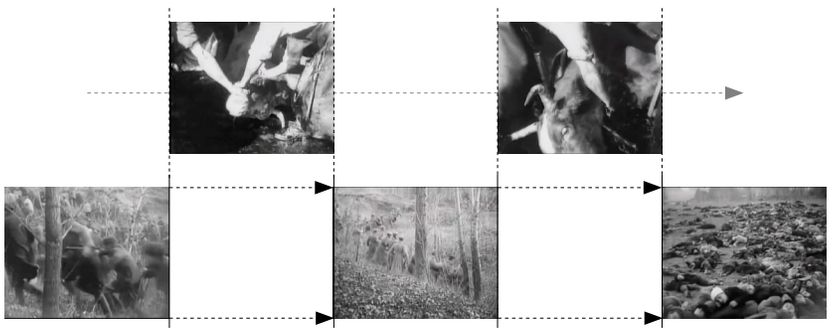

image 6: Strike, Sergei Eisenstein

4. ABSTRACT

In this montage method techniques, rhythms and stylistic aspects are more important than the narrative. The fragments have no clear relation with each other in space, time and meaning, offering space for the spectators to explore new ideas and relations by themselves. Instead of explicitly or implicitly imposing meaning, the spectator can construct their own reality.

An example of an abstract film is the movie 'Samsara' by Ron Fricke. Dynamic time-lapse shots interspersed with static shots of people staring into the camera create a dynamic play of flowing rhythms and interruptions.

The method could also be used to create a gap in space and time. Using an unrelatable fragment to interrupt the narrative. Giving the spectator time to relate to what is happening.
An example of such a gap in cinema is a sequence from Yasujirō

Ozu's movie *The flavour of green tea over rice (1952)*. A father and daughter are in the room, enjoying their final days together. Before the daughter will marry and move out. While the daughter is in bed looking at the ceiling and going through different emotions, a still shot of a vase appears. For six seconds the viewer looks at a vase, in the background silhouettes of bamboo dance in the wind. The shot is an undefined gap in the narrative, without using any associations or symbols (image 7). According to film theorist Hasumi Shigehiko, it asks the spectator simply to look at it: "To experience the vanishing of ourselves."

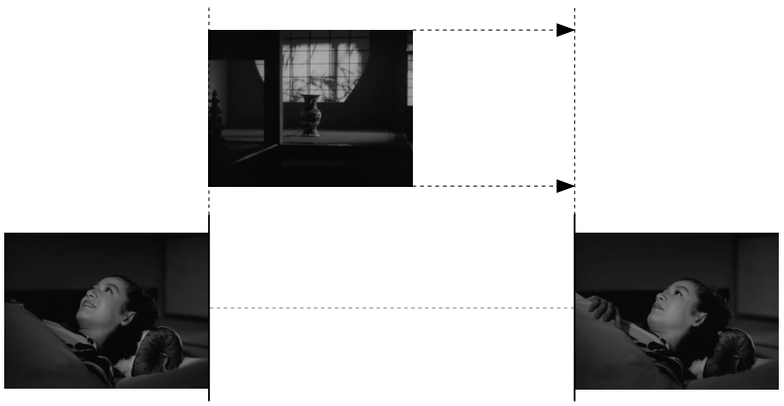

Image 7: The flavour of green tea over rice, Yasujirō Ozu

5. RANDOM

In this method, there is no thought about ordering the pieces. The pieces have no relation in space, time and meaning and there is also no thought behind the sequence's rhythm, movement or stylistic aspects.

Writing a program that juxtaposes random film clips, would generate a sequence without any intended relationships between the pieces. The spectators are not given any clue, left alone to interpret the pieces completely on their own.

DEFENITIONS

Intensities
released materiality

Dematerialized space
intensities detected by our senses

Materialized space
material properties of space

Atmosphere
materialized and dematerialized space

Time
measured space

Duration
defines the dimensions of space through time

LAYERS OF RESEARCH

The research will be structured into three different layers:

1. sequences of atmosphere
2. the protagonist
3. experiments of perception

SEQUENCES OF ATMOSPHERE

In the first chapter, existing architectural fragments will be drawn out in time. The sequences depict the material and dematerialized space, changing through the senses of a moving spectator. The material properties: building materials, light condition and framing, influence how the space is perceived. The intensities detected by the senses characterize the mood and atmosphere of the fragment. The duration of the sequence defines the dimension of space through our senses. For example, the body's resistance while moving up or the time taken to look through a window, describe the perceived measurement of space. Images 8 and 9 are some first sketches that illustrate a spatial sequence. The next step would be to also add the non-visible senses.

The aim is to develop a notational system where the change of intensities is depicted in a more abstract manner. Not showing the actual architectural object anymore but developing a scheme of perception.

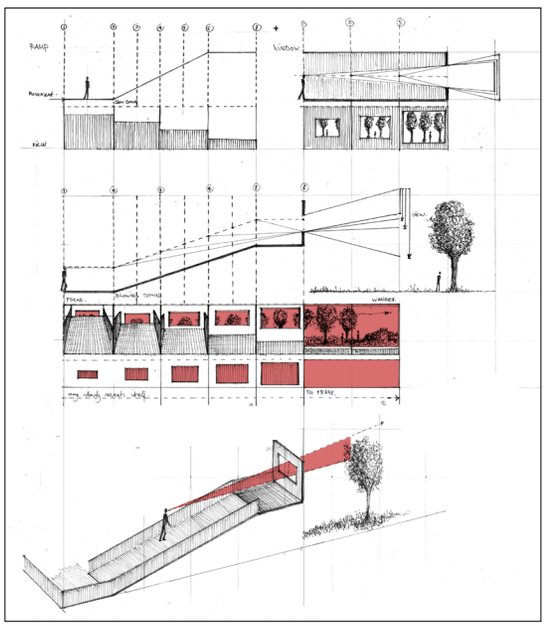

image 8: ramp Villa Savoye

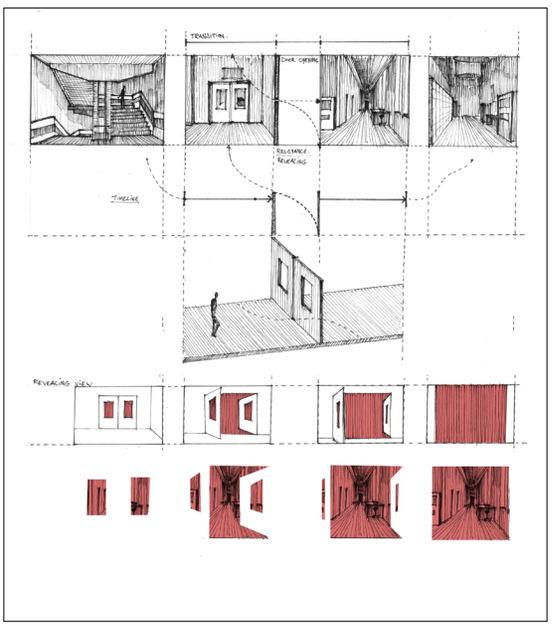

image 9: doors architecture faculty

image 10: paintings by Edward Hopper

PROTAGONIST

The second chapter is about the protagonist, describing through which eyes a space is perceived. The relation between the characters' activities and the spatial setting defines the social narrative of the space. Klaske Havik argues in her book *Urban Literacy* (2015) that architects can learn from the engagement with the protagonist in novels: "In literature, the users appear twice, not only as a character whose activities unfold in time and space but also as the reader who, in a sense, co-produces the story by his or her own imagination." In the same way, cinema depicts the development of a character, creating a dynamic relationship with the spectator. This approach will be the fundament of this chapter, describing the active and changing role of the user, within an architectural project. Using scriptwriting as a tool to describe different events in space.

She scurries out behind the counter and out of sight. Melanie finishes writing her address and stands impatiently by the counter. She taps her teeth with the pencil.

MRS. MACGRUDER (O.S.)
Hello, this is Betty MacGruder at Davidson's.
(pause; accusingly)
It's past three, you know.
(pause)
Well, how long do you think...? All right, would you check it please?
Yes, I'll wait.

Melanie sighs. Leaving her gloves and purse on the counter, she begins wandering around the shop, still tapping her lips with the pencil. There is no menace in the birds surrounding her. They are active and beautiful as they dart behind the bars and mesh of their cages. Off screen, the puppy begins BARKING again as the front door opens. Melanie looks up.

MED. SHOT - MITCH BRENNER

as he closes the entrance door behind him and starts up the steps to the bird department. He is a handsome man, about twenty-nine or thirty, well-dressed, and carrying a felt hat.

image 11: Script Birds, Alfred Hitchcock

EXPERIMENTS OF PERCEPTION

The third chapter will be the most experimental and less defined at this moment. The sequences of intensities (drawn in chapter 1) together with the character's script (written in chapter 2) form fragments of the 'script of space'. The scripts form the basis for doing experiments with the medium film, trying to translate them into cinematic sequences. Using the five different montage techniques to depict the different narratives. Simultaneously, modelmaking will be used as a method to explore how changing the material space, will affect the mode of perception. Filming the models creates a direct link between the fields to explore the relationship between perception and spatiality.

image 12: experimenting with models and film
during MSC2 elective *architectural translations*

DESIGN

The experiments done in the research will be fundaments for the design project. The aim of the project is to not start with ideas about shape or materials, but with a narrative.

Imagining a narrative begins with a protagonist: someone to design the building for, and a location: a context to interact with. They will help to start describing different events in time, and their relations. With the notational system developed in the research, I will try to design a dematerialized sequence of perception. Starting just with concepts, to only later translate them into more concrete scripts of space. The last phase will be the actualization of the script, materializing the imagined narrative. Producing sketches and models of actual spaces.

I will not decide on a user and location yet. I think that insight during the research will help form an idea about a suitable narrative. However, at this moment I have the feeling that an outspoken and well-described character would be very useful for this project. An option could be to choose a protagonist from a novel or film script. For example, Marris from the novel *Zwarte schuur* written by Oek de Jong. A story about a successful painter, who is always on the run for a trauma from his youth that he never dared to face. Or Simon, the main character of the book *Al het blauw* written by Peter Terrin. A book about a nineteen-year-old boy, trying to break free from life in the small village of his parents.

Another possibility might be, to find a real person to design for. Interviewing that person could be the start of writing a script myself.

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to be continued...