I have made an observation that almost has the importance of a discovery. It is this: the blind man does not go to the movies.

This is an observation of the greatest importance because it has never been made up until now—as far as I know—when it should be the fundamental axiom for the technical and artistic evolution of cinema.

Thomas Alva Edison, a deaf man, was able to bring the gramophone to the highest perfection: if Thomas Alva Edison had been blind, he could not have devised even the most rudimentary cinematic device.

It is not possible, then, for filmmaking to leave out of consideration the organ of the visual sense: the eye. The human eye to be more exact.

When, through a new scientific miracle, the blind can see and their vision will be mechanical, then—at least for them—the friction which today exists between the human eye and the cinematic eye will disappear.

In producing this friction, all the film studios have an agreement amongst themselves that is miraculous in the very quarrelsome world of film.

So miraculous that it would even be possible to include all the countless film studios under a single name: RECTANGLE-FILM.

Differing greatly from one another in program, business name, and legal constitution, money spent—from amounts that are as modest as a pygmy, to those that are more dazzlingly Rothschildian—in commercial or artistic purpose, they are all in agreement on the format of the frame: the rectangle.

So, back when there was no war, and there was no agreement between the parties, and there was no pane unico (‘unified bread’), there was already the standard format: 25 x 19.¹

And yet, no pupil, not even in the world of films, could be rectangular, not one is 25 x 19 or any dimensions that are proportional to these: all eyes, along the entire colour spectrum, from the most Karenne-ly pale to the most Bertini-ly dark, they have round vision—only round.²

This geometrical difference is of a certain importance for an instrument that must strictly be considered an emissary for the eye. The lens goes where the gaze of the viewer cannot directly go. So that, like an emissary, or as it was called in the volumes of dusty university memory, the longa manus (‘long arm’) of the law, the cinema can call itself the longus oculus (‘long eye’) of the viewer.
The maker of the first movie camera kept this firmly in mind, since he was trying to repeat, with more rigid material, that which the Creator par excellence had already done in Eden: creating the first pair of eyes, for the late Father, Adam.

In this way, the lens, a perfect imitation of the ‘crystalline lens’ was formed out of actual crystal; the ‘iris’, which was so accurately recreated in metal that it achieved the variable diameter of aperture—just like in a real pupil—became the lens aperture.

For the ‘retina’, the process was altogether more complicated. The aforementioned Adam had received from the Creator such a capacity for the ‘negative’ that it left him and his descendants free from concerns about any eventual crisis of celluloid.

It was useless to think of an imitation of this kind because, if this continuous ‘development’ and continuous renewal of the ‘negative’ is providential in the human eye, its benefits go to the exclusive advantage of the owner and they are placed outside of any possibility of commerce. Immediately after the slaughter of some animals, images of the last objects that they had seen were observed on their retinas. But the cruel scientists who carried out these experiments did not know how to draw particularly important conclusions from them about the role that this interesting phenomenon would have on vision.

Therefore, there remained no other means than to substitute for the fixed retina a retina that is always renewed: and then we have film, will all its problems, which are only too well known today.

As much as the human eye is imitated as perfectly as possible in the movie camera, a heterogeneous element is unexpectedly introduced: the rectangular shape of the frame: 25 mm x 19 mm.

Everything is constructed according to a curved line in the human eye, and it is known fact that nothing is more annoying than having something in your eye.

Practical demands?
Surely. But are they really that draconian?

In any market, one can only find film that is 35 mm wide...when you can find it at all. The perforations, which are indispensable for the gears, require their own part: exactly one centimetre: so that, only a width of 25 mm of usable space remains. And that’s fine. Still other practical demands (the frame, the turn, the gripping, alternating darkening) determine also the maximum height for each frame: 19 mm.

And that’s fine too. It is pythagorically fundamental for each operator that the maximum usable space for each frame is, for technical reasons, 25 x 19.
To go beyond one of these dimensions, even by just a millimetre, is not possible, unless you want to radically change all the cameras, the developing, the printing, the projection, and even the movie screens.

This last measure would have some, let’s say, ‘hygienic’ advantages, but all of the others would be so grave that the censors would oppose to begin with a campaign that was as damaging as the Bolsheviks to national industry.

Nor would it be worth the trouble anyway. The ukase (‘rule’) that for technical reasons severely prohibits going outside of this rigidly fixed rectangle does not, however, force you to use the entire thing.

Monsignor della Casa and home economists recommend not placing more food onto one’s plate than its circumference can hold. But it is not said that one must then fill up the whole thing: and the part that is used varies...depending on the food.3

In a film, there is generally more variety among the various scenes than among the various courses on a menu, especially in a time of war.

Therefore, it is not good manners to force the viewer to dine equally on each course: always, always 25 x 19.

That is boring, never mind that such a format—as has been shown in the above discussion of the physiology of film—is absolutely irrational.

Even a circular projection would be boring: and the circle is, despite that fact, the perfect geometric shape in itself, in addition to being the natural shape of the visual field.

The gaze embraces everything that is included in a cone that has for its centre what physiologists call ‘the centre of the eye’ and which has the pupil as its director. At a cinematic spectacle, this visual field is mutilated into a rectangular pyramid, into as many rectangular pyramids as there are frames in the projected film: and they are all equal, equal, equal (25 x 19).

Even in the far away times of faraway Egypt, they built rather fewer: only 80 of these pyramids remain, but of those, we typically only admire three, which are all of different sizes. Providentially, sometimes a particular light effect intervenes that eliminates a big part of the frame. An American production company has recently found a device of a certain cleverness. Called a ‘mobile aperture’ this external ‘matte’ is hazy at the edges, has an adjustable diameter—which confines the image to only one part of the screen.

And the rest?

Naturally, it remains black.

And isn’t the rest of the hall black? And then, does the colour of what you are not seeing matter? Right now, what colour is what is behind your back? It doesn’t have a colour: and the absence of all colour is, indeed, black.
This limitation of the visual field also has a physiological justification: we ‘gaze’ at an object: and it is the only thing perfectly in focus and perfectly seen. Even a close object can disappear, even if it is included in the visual field.

Schematic experiment: close your left eye, keep your right eye fixed on point A and gradually move it further away from the sheet of paper; at a certain distance, point B disappears in spite of the fact that even though it’s a bit out of focus, you can still see all of the page from In semi-darkness. Physiologists explain this with the ‘blind spot’ where the optic nerve enters the eyeball. They cite Mariotte and some [of his] colleagues. And all of that doesn’t mean anything. In reality, there is also some area of our visual field that does not interest us optically.

The cinema, the longus oculus, must keep this in mind.

And to keep in mind all that bizarre geometry which the eye constructs. The visual field is round, but it moves: and in these movements it outlines strange geometrical shapes which are not always modelled after Euclidean forms.

For the gaze that follows a car racing through a winding street, only the road itself, and the space immediately around it exist: all the rest is in negative. And is it worth taking away even a fraction of that attention—which is also aesthetic—to scatter it onto a rigid rectangular (25 x 19) panorama?

In a film, a proper outline of a frame can reveal the metteur en scène to be a sharp psychologist; the perimeter that he gives to a particular scene can essentially be an interpretation of it.

Each of the regular geometrical shapes has its own physiognomy, and therefore, a meaning all its own.

Perhaps a close link exists between psychology and geometry, and with theorems and axioms (more axioms than theorems) it could be revealed that to each state of mind corresponds a special geometric shape: joy is a polygon, astonishment is round, envy is [an] isosceles [triangle]...

The rectangle? Who knows. Perhaps only laziness corresponds to it: the base is larger than the height.

But, psycho-geometry aside, the rectangle is certainly not the most flexible of frames, at least in the role that it serves in the film. Sometimes an upright rectangle could frame a scene well; and indeed, to me it seems the only thing that could frame the sight of a ladder, a delicate tower, a flame, or feminine slenderness well...

To imprison the eye between two rigid frames of 25 x 19 is, therefore, a crime against aesthetics, logic, and physiology.

The camera, the tyrannical camera determines the boundaries in a draconian way: if [making it] contraband is not possible, why not at least
try to create the illusion—and the eye is the sense that most is most readily deceived—that such a prison doesn’t exist: and to do this, all it takes is to not always go all the way to the edge of the frame.

And to set up camp freely, and above all aesthetically, on the left, on the right, up high, and down low, expressing oneself, too, with various framed polygons.

There are frames for which the entire screen has a desolate, Saharan vastness, while for others it is narrow: the first want to be enclosed in a small, intimate frame, the others want to be projected beyond the walls of the theatre or to descend, down to the viewers’ feet.

They would stop when they reached the orchestra pit.

‘Rettangolo-film (25 x 19), In Penombra, 1/3 (August 1918), pp. 121–123. Translated by Siobhan Quinlan.

Notes

1. [Translator’s note. Pane unico or ‘unified bread’ was a ration of bread made during the First World War.]
2. [Translator’s note. The adverbs karenneamente and bertianly or ‘Karenne-ly’ and ‘Bertini-ly’ refer to the film stars Diana Karenne and Francesca Bertini.]  
3. [Editors’ note. The author is referring to della Casa, Galateo.]  
4. [Editor’s note. The author is referring to Edme Mariotte (1620–1684), considered on the founders of French experimental physics.]