Studies on time:

- 1) Time in Film or the Film's Time;2) Time and History: The inconstant variable
 - Maria Dora Mourão;
 Raquel Glezer

Institute of Advanced Studies of the University of São Paulo

Presentation

The temporal dimension of phenomenons is a philosophical, methodological and

experimental concern for several knowledge areas, in the field of arts and human

sciences and also in the exact and natural sciences. It can be analyzed from the

perspective of its generality, as a natural dimension, through philosophical questions

regarding its essence. It can, on the other hand, discuss different appropriations of time

by several disciplines, through questions of how time is incorporated and dealt with by

several areas of human knowledge.

The proposal of an interdisciplinary approach to discuss this and other issues on time led

to the constitution of GET - Grupo de Estudos sobre o Tempo (Group for Studies on

Time) in February 1989, connected to the Institute for Advanced Studies in the

University ofSão Paulo.

Since then, this Study Group has met systematically in the headquarters of IEA/USP for

seminars and debates on several aspects of issues of time in several disciplines, always

with a perspective of interdisciplinary interaction. It also organized several round table

discussions and public conferences in and out of USP.

One of the results of this group's work is now in your hands. We have great satisfaction

in starting the publication of documents produced by GET through this special series in

the Document Collection by IEA. With this we intend to show the public the

transcription of several round table discussions, conferences, symposiums and internal

debates that GET has organized and participated in several instances.

Nelson Marques and Luiz Menna-Barreto

Coordinators of the Group for Studies on Time - IEA/USP

GROUP FOR STUDIES ON TIME FROM THE INSTITUTE FOR ADVANCED STUDIES IN USP

Due to the planning of the X ENCONTRO DE HISTÓRIA 'MOVIMENTOS SOCIAIS' (X "SOCIAL MOVEMENTS" HISTORY MEETING) from the São Paulo Nucleus in the National Association of University History Teachers (ANPUH) it was proposed and accepted that the GROUP FOR STUDIES ON TIME participated in a session for research communication.

The aim of this participation of GET in the X HISTORY MEETING was multiple: the aim to present GET to the historian community, which has a basic conceptual concern with Time, and the presentation as a concrete interdisciplinary activity, trying to contact other groups with similar concerns.

At that opportunity, the GET representatives were Nelson Marques, one of the Group coordinators, Maria Dora Mourão, from ECA/USP and Raquel Glezer, from FFLCH/USP.

The public presentation was based on the texts that follow, and there was a following debate with the public.

GROUP FOR STUDIES ON TIME (GET) FROM THE INSTITUTE FOR ADVANCED STUDIES IN USP: AN INTERDISCIPLINARY PROPOSAL

NELSON MARQUES¹& LUIZ MENNA-BARRETO²

From March to July 1988 a group of professors from USP, UNICAMP and the Medical School in São Paulo met systematically in the Biomedical Sciences Institute in this University aiming to form a study group on the issue of time. This multidisciplinary study group proposed to approach time as an integrating element in the analysis, in the study and in the vision from different knowledge areas.

During that time we tried an initial characterization of the treatment given to the issue of time by different knowledge areas. The viability of the proposal was tested through debates guided by contributions from the members of the group and eventual participants. The interdisciplinary discussion allowed for the exchange and incorporation of concepts that are particular to each discipline. The theoretical analysis of time led to heated discussions on the use and appropriation of time in physics, in music, in psychology, in biology, in anthropology and astronomy, with an extremely positive result.

The temporal dimensions of the phenomenons constitute today a concern for several knowledge areas, in philosophy, languages and arts, and also in the biological and exact sciences.

This temporal dimension can be analyzed from the point of view of its generality, as a dimension of nature, through issues of philosophical order regarding the essence of time. We can also discuss the different appropriations of time done by several disciplines, through the issues of how time is dealt with in each knowledge area. In reality, these two issues complement each other, and each specific appropriation falls back, explicitly or implicitly, on a concept of time that is a generality.

Different cultures may have distinct concepts of time, for example, the linear and cyclic conceptions from different cultures in the eastern and western worlds. It seems plausible to suppose that these different concepts express themselves distinctly in the social appropriation of time in arts or science, for example.

The temporal dimension is an important element in the artistic creation – in music and film this dimension seems to be decisive. Through the "temporal project" contained in a work of art it may be possible to unravel new aspects of this work and enrich our comprehension of the artistic phenomenon and the concept of time. In the same manner and as part of this process, the study of the temporal perception mechanisms is inserted in the psychology and biology domains. In these domains the temporal distribution of events may be a determinant factor for the resulting perception, and the temporal order may also give meaning to events.

In the field of biology there is a current debate about the temporal organization of live matter, a debate originating in the ascertainment of phenomenons linked to biological rhythmicity and demonstration of the existence and functioning of biological clocks, which assumes the name of chronobiology.

The examples above illustrate the current concern with the temporal dimension in several disciplines – these examples reflect in part and synthetically some of the discussions that took place in this interdisciplinary group.

The result of the initial discussions led the group to propose its link to IEA/USP. The Group for Studies on Time (GET) was approved by the Executive Board of the Institute for Advanced Studies of the University of São Paulo in the end of 1988. Starting in February 1989 GET has met every other week in the IEA headquarters for seminars and debates regarding the issue of time.

The Group for Studies on Time from IEA/USP has organized seminars and lectures internally for the group, as well as conferences and round tables, with activities aimed to the general public.

These activities, in an interdisciplinary perspective, have been the basic material for discussions among the members of the group and are the basis for the elaboration of documents from the works of this Study Group. The following themes were selected to be presented during 1989 as conferences and/or round tables: 1. Time in different cultures; 2. Time in Philosophy

and History; 3. Time in Arts; 4. Time in Natural Sciences; 5. Time in Poetry and Literature; 6. Time in Psychology; 7. Time in Social Communication.³

The first public activity by GET happened in April 1989: the first round table, "Time in different cultures" took place in the film auditorium of the Arts and Communications School on April 24, with the participation of professors Gustavo Correa Pinto, from PUC/São Paulo, with the theme "Time in eastern cultures", Jaa Torrano and Mary Lafer, both from FFLCH/USP, with the theme "Time in the Hellenic culture". There was also the expectation of a lecture on the theme "Time in native cultures", by Professor Guilhermo Ruben from UNICAMP, who unfortunately could not be present. The theme, however, was taught by professor Marcio D'Olne Campos, from the Physics Institute in UNICAMP, who exercised the role of coordinator in this first round table.

The second round table, with the theme "Time in philosophy and history" was coordinated by Professor Maria Helena Augusto from FFLCH and took place on May 29, 1989, in the film auditorium of the Arts and Communications School/USP. It had the participation of Professors Jose Carlos Bruni from FFLCH with the theme "Time in Philosophy", Raquel Glezer from FFLCH with the theme "Time in History" and Milton Santos, also from FFLCH, with the theme "Time in the City".

The third round table, entitled "Time in arts", took place on June 19, 1989 in the same place, coordinated by Professor Maria Dora Mourão from ECA/USP. The themes presented were "Time in Fine Arts", with Ana Mae Barbosa, MAC/USP and "Time in Film", with Ismail Xavier, ECA/USP. The other programmed themes, "Time in Music", with Paulo Herculano, ECA/USP and "Time in Dance", with Marilia Andrade, from UNICAMP, unfortunately could not be presented for reasons beyond our control.

The fourth round table "Time in the Natural and Exact Sciences" took place on August 28, 1989, in the Film Auditorium of the Arts and Communications School/USP, coordinated by Professor Luiz B. F. Clauzet from IAG/USP, and the themes presented were "Time in Astronomy", by José Antonio de Freitas Pacheco from IAG/USP, "Time in Mathematics", by Francisco Miraglia, IME/USP, and "Time in Biology", by Erasmo Garcia Mendes, IB/USP.

The fifth round table, "Time in Literature", took place on September 25, in the same place and time, coordinated by Professor Raquel Glezer, from FFLCH and participation of Professors Antonio Medina Rodrigues, Bóris Schnaiderman and João Alexandre Barbosa, all from FFLCH/USP.

The sixth theme programmed to be presented still in 1989 was "Time in Psychology", presented as a conference on October 23, also in the Film Auditorium in the Communication and Arts School/USP, with presentation by Professor Ronilda Ribeiro Salami from IP/USP and the participation, as a visiting lecturer, of Professor Vera Stella Telles from the Psychology Institute in USP.

The last public activity promoted by GET and programmed for the second semester would be a round table themed "Time in Social Communication". This presentation, however, was rescheduled for 1990 and will be part of a new cycle of public presentations that is in the final stages of organization.

All the activities programmed by GET have as complement and work norm specific meetings to adequately evaluate each activity. At the moment the presentations done in the several round tables and conferences are in the final editing stages for publication in the Collection of "Documents" from IEA/USP.

Those interested in information about the activities and publications from GET should contact the IEA/USP secretary.

TIME IN FILM OR FILM'S TIME

MARIA DORA MOURA⁴

The discussion of the concept of time related to the cinematographic art is a difficult issue once the temporal and special issues are one of the determinant characteristics of film, and thus, of the cinematographic art.

Since the first films, where film was basically structured on a single plain, the shift of the temporal action granted to the cinematographic expression a fundamental language data for the arrival of this new art.

The cinematographic tie is built in an extremely complex manner, we could say there are three temporal lines in film: one of them is given by the action of the film itself, another by the time the viewer lives through his relationship with film, and the third is the physical projection time (24 frames per second), through which the viewer will be involved in an illusion of movement in the perception level, since the passage from one frame to another will cause no psychological difficulty to the viewer because it is a continuous and simple movement.

We will detain ourselves to the first lines, since the issues of projection time is confused with the viewer's time, for it depends on the illusion of continuity that the projection determines to interact with the film.

Regarding the action itself, we face the capacity of the cinematographic languageto indirectly represent the "real" time, since film works with past images updated through the film material (celluloid); meaning that the film represents in the present moment (regarding the viewer) images engendered in the past, remote or close, but always in the past. Thus we have juxtaposition, made possible from the point of view of film temporality: the present which conserves the past in it, and that somehow forwards us to a future. The temporal differences that can exist will be embellished by the temporal continuity resulting from what we can call an invisible set up, situated in the passage of frames and, sometimes, from plane to plane, mainly in those where the camera stops done for substitutions give us the illusion of temporal continuity.

On the other hand, the process of forming images in film happens from the condensation that comes from the representation of an image and its temporal meaning, resulting from an assembly process which will determine meaning. Thus, the elements no longer exist in isolation, and now have a particular <u>representation</u> in the general theme. This juxtaposition makes the whole perceptive. This whole will be the <u>image</u> in which the author will live the theme that will be received by the sensibility and intelligence of the viewer.

For S. M. Eisenstein, a film theorist, the image is based on a dialectical structure. To reach the requirement of an image, whichever it is (sound or plastic), there is a single true law:

"The part penetrates the conscience and sensibility through the whole, and the whole through the image".

Using a clock as an example, from the point of view of its geometrical image (representation) and its temporal meaning (image), Eisenstein will ask how the process to unite representation and image will take place. "A certain configuration on the sphere of a clock provokes an enormous amount of representations associated to the time that corresponds to the determinant configuration. Let us suppose, for example, that the figure given is the number 5. Our imagination is educated to respond to this number bringing to mind scenes that may occur at this time. Maybe its tea time, the end of a work day, the beginning of more flow at the train station, maybe stores closing or the characteristic light of the end of the day... In any case, we automatically remember a series of scenes (representations) of what happens at 5 in the afternoon".

The role of the number 5 with the representations formed from this number make uninteresting intermediate elements disappear, producing a condensation that leads us to an instantaneous perception of the number and the corresponding time. Therefore, the connection between the representation and the image it brings is what will lead to the condensation process, and consequently the awareness of its meaning.

The organization of all these elements in our conscience is done by a refined assembly process.

The term condensation is understood here as Freud understood it, meaning, as two juxtaposed representations.

The cinematographic time is necessarily an indirect representation because it is the result of an assembly which articulates the images. This articulation can be through alternations, conflicts, continual and non-continual resolutions, by any selection and ordering activity that gives the imaging time determined consistency due to the need for a narrative.

We also have that the film produces a "continuity" illusion when it approximates actions that can be happening in different spaces and times, due to cutting. Thus, the assembly aims at the plausible, through the representation of this continuity in space and in the narrative time.

However, the continuity process has not always been obeyed in the history of film, as with Jean Luc Godart, for example, notably in his film "Made in the U.S.A", where he raises the notion of assembly-collage, where the manifest element will be no more than a fragment. This discontinued collage will manipulate the referred in a way to show it as a trap. Thus, two discontinued parts are united in a continuous action without changing the position of the camera. He does not concern himself with conciliating the planes, he abruptly cuts from one to the other with no continuity concessions. This position does not invalidate the conciliating sense that is determined, in any manner, by the concatenation of planes, meaning the creation of a

deeper credibility. This happens because in the interior of the cinematographic plane there is a movement (internal assembly) which may be considered a cell in time, which, later, through the dialectical part/whole representation, will be articulated with other cells in the inter-plane assembly. This temporality is inherent to the plane, once it detains movement not only for its duration, but also from the cut it does from a said "real" action that is transported to the film image.

It is in this temporal game installed in the space of film through assembly that we find the central axis to discuss time in film.

And it is also this temporal game that the viewer must accompany in a manner as to have his time as a receptive subject be situated in parallel to the time of the film so that, this way, he may project himself and even interact with the cinematographic time. The viewer must assume a position regarding the film, and assuming this position he then has a point of view which allows him to learn the meaning not as something given to him, but as something he reaches.

To reach the viewer's emotion is something that seems to be one of the main goals of film, however, it is important to state that emotions are used to make the viewer integrate in the action, becoming part of it to live and discuss the issues. It is not a catharsis, which makes the viewer lose rationality and be hypnotized by the work, but an integration between the work and the viewer, through the articulation of planes worked according to the author's intention, which will create new meanings with which the viewer can identify with or distance from.

From the point of view of perception psychology, the fragmentation of the image components will always have, in its basic structure, the image as a whole. Thus, the parts presented will be linked to the whole regarding the viewer's perception, due to the recognition he will make of the image from the images already archived in his memory.

Anton Ehrenzweig, in his <u>Psychoanalysis of the artistic perception</u>, when discussing that the assimilation of the human being of parts of an image is guaranteed by the "location constancy", will explain the following: "The eye automatically speculates an object, and in a fraction of a second, its whole form emerges in the conscience. But wouldn't this form necessarily be a combination of several diverging glances, none of which would have a full image?

We will describe this oscillation process in slow motion. Looking at the image of a man, the eye can circulate over his face, shoulders, elbow, knees, feet, etc., but no matter what temporal sequence this happens in, we can observe the details of form, and no matter how erratically our eyes may jump from one point to the other, bringing in to focus amply separated visions, the sectioned glances will always fit into the same coherent and stable composition, with the sections that in reality are not seen, but are completed by our memory. The stability of the composition is mainly due to the "location consistency" work, which guarantees the stable

(constant) location of the partial views in an entire form. Our memory, or, if need be, our imagination, will complete the parts that are lacking because they were not extensively seen, and thus a correct and complete composition will appear in the conscious perception of the thing".

In the case of film, this decomposition of image through close planes and details will always have the general plane as a reference, where, even if quickly, the viewer may identify the entire image and better comprehend the action.

Thus, film is an art in the limit between space and time.

TIME AND HISTORY: THE INCONSTANT VARIABLE

RAOUEL GLEZER5

"C'estdans le temps que se déroule l avie de l'homme, c'estdans le tempsque se succèdent les événements et les modes de penséedont le ensemble consitue l'histoire du monde, c'est à travers le temps quel'homme écrit l'histoire".

This text is part of a reflection on time in history as an element of rupture and meaning, a discussion of the year in course in the group for studies on time in IEA/USP.

To speak on Time and History is the act of resuming some basic issues for reflection on historical knowledge, as it has become more concrete in terms of epistemology and history theory.

What does time mean for history? The classic answer is that time is one of the mandatory variables, along with space. A consolidated truism, repeated mechanically through the years. No one thinks of questioning the origin of variables, perceived as evident in themselves, a given and unquestionable truth, rendering unnecessary the worry with the meaning and relationships with historical knowledge.

When we retrace the relationship of History with Time, we have the opportunity to verify that this issue is complex, involving multiform facets.

Time, for history, besides being a mandatory variable, is fundamentally a theoretical issue.

The emergence of History as a knowledge field, an apprehension of reality, with theories, methods and work techniques has become possible with the separation of the philosophical thinking of the Christian Philosophy and History. When History stopped being the History of Humanity (the Universal History, meaning, Catholic), distinct from Philosophy, the process of historic knowledge can define its object: the study of the action of men, the relationship of men with nature, and the relationships of men with each other.

In this separation, History maintained the Christian concept of time, which up to then was sacred, eschatological, became secular, but maintained its finality, whichever the name given to it: Salvation with the Final Judgment was replaced with Freedom, Reason, Progress, Evolution, Revolution, etc.

The notion of time, although secularized, continued being the Christian time: past, present and future. There was only a swap of meaning: Creation and the Fall of Humanity becomes Past, the Offer of Salvation becomes Present and the Final Judgment becomes Future.

Time stopped being the expression of Devine Providence and became the expression of the will of men, directed by them. This time became absolute. For History, Time ended up being used as a basic factor, as an element for union, an explaining factor, coordinating the past of men which were no longer inserted in the path towards Salvation, they were immersed in Time, walking with men towards the Future, whichever name it was given.

Time allowed historians to establish relationships between societies with different counting systems, different calendars, and disconnected markers. Chronology was born, as an auxiliary science, which allowed for the formulation of chronological tables, relating several calendars with unique temporal markers, and making possible the articulation among them and of apparently isolated facts.

Time became the causal, primary, elementary explanation: facts were aggregated by chronological proximity, and this was enough for mutual insertion and explicitness.

With the progressive evolution of historic knowledge, the temporal issue became a technical, classifying resource. The periods were studied, which also came from the Universal History, with empires, ages, eras. The growing specialization of knowledge introduced markers, temporal records, and stages to better manage and explain the ever growing set of documents. Simultaneously, with the choice of each significant temporal marker, each society restructured its past and built is web of meaning.

The perception of time as an element for articulation transformed it in a background, unchangeable scenery, available for the historian as an element for explanation. There was nothing to be said or discussed about time.

The introjection of time as an explaining factor in itself may be accompanied by a careful reading of the manuals of introduction to historical studies, which from the past century to this one serve as a presentation of the consensual state of historic knowledge for beginners.

In the classic Langlois & Seignobos⁷ we find Time as a classifying category for documents and then facts.

In the book by Bauer⁸, a clear separation in the use of the factor of time in two different moments appears: one in the periods and one in chronology, as an auxiliary science.

The issue of Time is not treated in manuals or in historical theory books. Time only appears as data.

Only in the 50's did Fernand Braudel introduce the debate on long duration, and soon the braudelian temporalities were introduced, used normally, and became a resource to classify phenomenons of difficult articulation in a Time thought of as uniform and continuous.⁹

In the texts from the most recent manuals there is the discussion of ways of counting time and how historians submit their explanatory process, ¹⁰ or how the concepts related to the temporal issue develop, like a calendar; past/present; mystical ages; ancient/modern; eschatology and decadence. ¹¹

Since the issue of time is not an object of attention for the books which, in theory, should be centered in the discussion of historical knowledge, its development, its practice and its problems, we should not find it strange that a large part of contemporary historians use the term Time as a synonym for period, era, age, moment, ideology and history.¹²

The indiscriminate use of the term indicates that the concept is not clear for historians, and due to this it is used as an articulating element, an explaining factor in itself.

If the concept is not clear for specialists, how will it be presented to those who read?

For the layman the issue of time is completely rejected. Time is always presented as a continuous, linear articulating axis where facts (notable, strange, exotic or everyday) are inserted.

For historians it is not necessary to remember that their work is structured on random residues of the past, to which contemporary requests, social concerns and existing resources are aggregated.

For the reading public all this is covered up. This contributes to his illusion of the way historians refer to Time as "The Time of Quixote", of Vilar, or "The Time of Cathedrals", of Duby.

Historians alternate the use of History and Time, without warning the reader, in a concerning manner. Two works can be used as examples of alternation. One is the essay by Halevy, Essai sur l'accélération de l'histoire, written in the 40's, which has as central theme the temporal acceleration of historic facts¹³. Another is the recent translation to Portuguese, in its second edition, of the set of essays by Philippe Aries, denominated The Time of History, which talks about his personal journey as a historian.¹⁴

If renowned specialists use Time and History in an undifferentiated form, how can the reading public guide itself?

We should not find it strange that in the daily language Time and History are still used as synonyms, as equivalent terms, and we should not complain when Time is given the main role for explaining what happened. We cannot complain of the lack of historicity of the contemporary society because it is immersed in Time, a synonym for History.

We historians need to resume the issue of Time, which cannot be restricted to theoretical and ideological issues, such as the debate on Europe centered or periods by stages, ¹⁵ or the debate on the selection of temporal symbolic social markers, the winners and the losers. ¹⁶

Whilehistorians use Time and History as synonyms the variable Time will not have its concept clarified. For the reading public the only resource is to not comprehend time, and the certainty that Time is the great solution to the problems the human being has placed in his journey, and that Time, as an "ex-machina" god will solve all the problems man has not been able to solve.

It is a strange trajectory, two centuries and a half after historians secularizing their knowledge, the sanctification will return, with the sanctification of Time as the solution to all human problems. And again, past/present/future will be sacred, and men have only to await their destiny.

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