

Reaching Toward the Outside: Saussure, Hjelmslev and Cinema Semiosis

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The present paper investigates the ways through which semiosis in general and cinematic semiosis in particular reach toward the “exo-semiotic” realm. It attempts a meta-semiotic and epistemological approach, based on Ferdinand de Saussure’s tradition of semiotics, and particularly on Louis Hjelmslev’s model of the sign-function, as introduced in his 1954 essay “La stratification du langage”. It investigates the sign-function’s relations to its referent and to its expressive materials, and then attempts to apply Hjelmslev’s model to cinema. I hope to achieve the double aim of re-situating some lingering debates in cinema theory, while also exemplifying some questions regarding semiosis in general.

The paper starts by summarizing the main axes of Saussure’s definition of the sign and its formalisation by Hjelmslev. It then shows how the de-essentialisation of semiosis leads to significant re-arrangements of the traditional premises with regards to the sign’s relation to both the referent and the expressive medium. Finally, it surveys the central issues that formed the discipline of the semiotics of cinema, stressing the conventionality of the cinema sign-function and the heterogeneity of its expression-plane. The paper thus shows that Saussure’s and Hjelmslev’s insights with regard to general semiotics can assist in untangling theoretical misunderstandings with regard to how cinema functions, while understanding cinematic semiosis can contribute to deepening and enriching our understanding of the function of semiosis in general.

Saussure’s fundamental semiotic arbitrariness and Hjelmslev’s stratification

Structural semiotics¹ of the Saussurean lineage gives a completely de-essentialised definition of signification. Languages are self-determined through their inner differences, without positive terms. This implies, on the one hand, that meaning is no longer defined by reference to an object in the

1. Following the inaugural decision of the International Association of Semiotic Studies in 1969, I call *semiotics* the unified field of semiotic and semiological sciences.

exo-semiotic world.² On the other, it means that the semiotic connection is fundamentally conventional. It was this emptying of language of any metaphysical properties, along with a disconnection from the particular medium of sound, that allowed Saussure to envision “natural”, i.e. verbal, languages as one kind of semiotic systems among many others, and linguistics as a subset of a future science of semiotics.

In the first chapter of the first part of *Cours de linguistique générale*, the sign is defined as “the combination of a concept and an acoustic image [...] *signified* and *signifier*” (99).³ Two premises are combined in this definition: that the sign is the *inseparable* co-existence of two aspects; and that the sign is *not* of material nature. Both are directed against the traditional position of language as “nomenclature” (97), according to which language names things. The signifier is defined as an “acoustic image” as opposed to “material sound”. It is a form perceived by the senses of the subjects of communication, existing “in [their] head”. The signified is not material either and also exists “in [the subjects’] heads”. It is called “concept” not in the Platonic sense of a free-standing entity but in opposition to the “thing” existing (or not) in the world. *Signification*, the relation between the signifier and the signified, which is the object of the science of semiotics, is clearly distinguished from *reference*, i.e. the relation of the sign to its referent, which constitutes one of its epistemological boundaries.

An intrinsic part of Saussure’s definition of the sign is the notion of differentiability, summarised by the famous dictum: “*in language there are only differences [...] without positive terms*” (100) and expounded in connection with the concept of “linguistic value” (155-169). According to the *Cours*, what language does is to articulate the unperceivable and amorphous continua of sound and thought into double-faced formal units. The signified and the signifier are in this way given specific definitions, instead of the approximate descriptions of “acoustic image” and “concept”. Signifiers are the formal units produced by the articulation of the sonorous continuum by language, each inseparably connected with a signified. Signifieds are the formal units produced by the articulation of the conceptual continuum by language, each connected with a signifier (fig. 1). So, a signifier (or a signified) is defined by two relations: (a) with its counterpart signified (or signifier, respectively), and (b) with other signifiers (or signifieds). Correspondingly, a sign is defined (a) by the internal relation between its signifier and its signified, and (b) by its relation to other signs. The first relation determines the sign’s *signification*. The second relation, i.e. the relation with entities of the same order, determines the sign’s *value*. We are led to a definition of language – semiotic systems – as pure form.

2. By “exo-semiotic”, I mean the realm “outside-of-the-semiotic”. I prefer the Greek prefix “exo”, as opposed to the Latin “extra”, to avoid the connotation of “more”. Alexandros Ph. Lagopoulos introduces the term in order to describe the elements pertaining to semiosis without belonging to the semiotic realm (“In Quest of Architectural Theory” 109). I am generalizing the term, as both an adjective and a noun, even when not referring to Lagopoulos’s specifically defined scientific entities.

3. When the work listed is not in English, the translation of citations is the author’s.

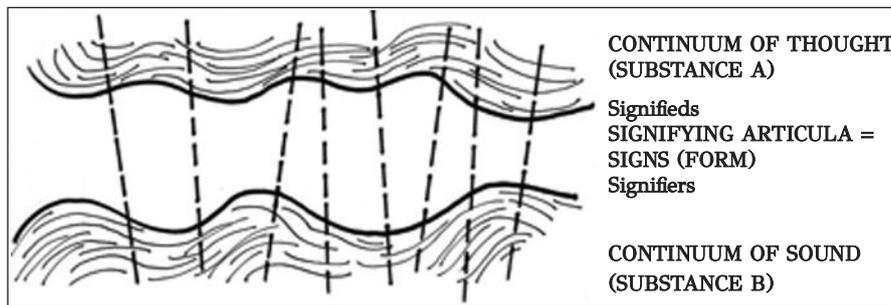


Fig. 1. Saussure's definition of the sign.

The fact that signs gain their value by their position in the semiotic system and not because of some intrinsic similarity or analogy with the extra-semiotic world constitutes one of Saussure's "primordial" principles: *linguistic (semiotic) arbitrariness*. Saussure subscribes to the conception of language as social convention. He explains that his use of the term "arbitrary" does not mean "dependent on the free choice of the speaking subject" (101), which would contradict the social nature of semiosis, but "unmotivated". On a first level, this means that there is no intrinsic reason why a particular signified is paired with a particular signifier, and consequently no intrinsic connection between a sign and its referent. However, the Saussurean position is much more radical than this. By defining language as a form articulating the continua of sound and thought, he indicates that it is us, linguistic (semiotic) communities, who give shape to the world through the process of giving meaning. It is not just the relation between words and things, but the very distinction of the world into "things" which is no longer natural.

This radical form of arbitrariness, where language comes first and determines the constitution of concepts as well as the distinction between sounds, I call, following Ducrot, *the principle of fundamental semiotic arbitrariness*.⁴ The completely formal definition of language as a semiotic system that this principle entails provides a basis for the generalisation of Saussure's definition to all semiotic systems. Moreover, in this new definition, the sign is no longer originary. This opens the possibility that the significant semiotic unit could be larger or smaller than what traditionally was called a sign.

4. I initially adopted this term in my doctoral thesis, inspired by Oswald Ducrot's phrase "there exists a *fundamental linguistic arbitrariness* – to distinguish from the arbitrariness of each isolated sign" (Ducrot and Todorov 30). In his critical notes to *Cours de linguistique générale*, Tullio de Mauro informs us that Saussure's initial wording of the phrase that opens the sub-section on the arbitrariness of the sign, which now reads "The link unifying the signified and the signifier is arbitrary", was "The link unifying the signified and the signifier is *radically* arbitrary". He argues that the purpose of the adverb was not just a general re-enforcement of the statement but meant that "the link is arbitrary *radicitus*, in its very foundations" (442).

Hjelmslev's stratification of semiotic systems, as presented in his 1954 essay "La stratification du langage" (44-76) and elsewhere, is an elaboration of the Saussurean definition of language. As the sign is constituted by its relations, Hjelmslev turns the investigation of the sign into an investigation of the structure of the constitutive relations of the semiotic phenomenon, i.e. the *sign-function*. *Function* Hjelmslev defines in the *Prolegomena* as a "dependence" (20-24), which means more or less a logical relation.⁵ The terminals of a function, i.e. the entities among which there is the relation, are called *functives*. In the case of the semiotic phenomenon, the functives are constituted by the function.

Systematizing Saussure's positions, Hjelmslev defines a semiotic system as "a specific form organised between two substances: that of content and that of expression" ("Stratification" 44). The terms of the *content/expression* and *form/substance* oppositions are defined relatively (*Prolegomena* 38; "Stratification" 47, 76). From this double division result the four parts of every semiotic system, which he names *strata*: "*content-form*", "*content-substance*", "*expression-form*", "*expression-substance*". In the case of a verbal language, such as English, expression-substance is the sonic continuum as perceived by speaking subjects; expression-form is its differentiation by the semiotic system into signifiers; content-substance is the potential conceptual universe as perceived by a semiotic community; content-form is its differentiation by the semiotic system into signifieds. The sign-function proper is the relation between content-form and expression-form, which is a mutual dependence, a double implication, which Hjelmslev calls *denotation*. This is the equivalent of the Saussurean relation between signified and signifier. The relation between form and substance inside each plane is a one-way implication, where substance presupposes form but not the other way round, which relation Hjelmslev calls *manifestation*. The only two strata that have no immediate relation to each other are the content-substance and the expression-substance (*Prolegomena* 68; "Stratification" 53-54) (fig.2).

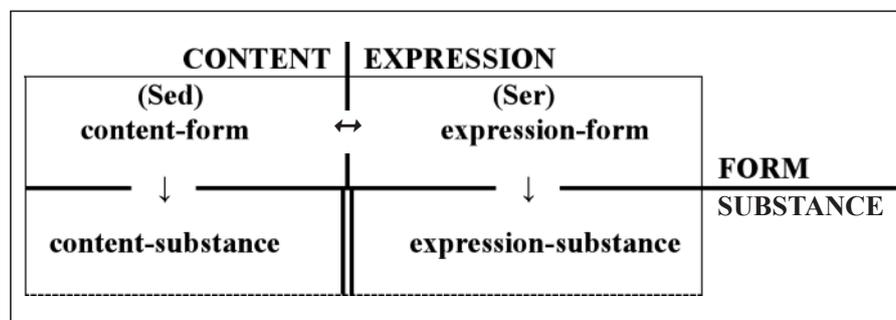


Fig. 2. Hjelmslev's stratification of the sign-function.

5. Hjelmslev's 'function' is equivalent to the mathematical concept of 'map', of which a sub-case is the mathematical concept of 'function'.

Firstly, the sign-function is theorised from the level of the entire semiotic system down to its different signifying articulations, all of which can be called in this sense “sign-functions”. In the case of natural languages, this means that “entities commonly referred to as sentences, clauses, and words seem to fulfil the stated condition [of sign]” and also “[w]ords are not the ultimate, irreducible signs” (*Prolegomena* 27).

Secondly, Hjelmslev uses the algebra of sign-function to explain *connotation* and *metalanguage* (*metasemiosis*) (*Prolegomena* 73; “Stratification” 51). A semiotic system whose *expression*-plane is a semiotic system is called a “connotative semiotic”. A semiotic system whose *content*-plane is a semiotic system is called “metasemiotic”. Therefore, we define connotation and metasemiosis as higher-degree sign-functions. First-degree function, i.e. *denotation*, is the most common connection between a content-form and an expression-form for a specific semiotic community. Moreover, translation should be construed as a kind of metasemiosis, due to the interdependence between content-form and expression-form.

Thirdly, the substance-strata are “semiotically formed” (“Stratification” 57). To speak of the *manifestante* without implying that it is semiotically formed, Hjelmslev uses in French the term *matière*, in English *purport*, in Danish *mening*. Judging from the use of these terms, I think that a better rendering of the concept in English would be *material*. The French term is used both in singular and in plural, excluding therefore the other possible translation in English as *matter*. Hjelmslev’s own English term *purport* (and Danish *mening*) obviously originates in the symmetry between the content and expression planes, but tends to lead to misunderstandings, connoting the existence of meaning outside the semiotic realm. One should also notice that Hjelmslev’s materials (*matières* / *purports* / *meninger*) are also already in a certain sense formed, otherwise they would completely escape cognition (58). They are “scientifically” formed and sciences are also semiotic systems. The explicit consequence of the semiotic formation of substance is that one material, let us say sound, can produce many semiotic substances, and a semiotic substance is neither necessarily confined to one material nor does it exhaust the entire material. In Hjelmslev’s texts, there is confusion about whether the terms *purport* and *matière* should also be used for an even “rawer” entity, that which escapes cognition altogether, and which cannot be referred to in the plural; this entity I will refer to as *matter*.

Hjelmslev investigates the principles of *the inner structure of substance* (56), each *consisting of multiple levels*, which have “defined functions and hierarchical order” (62). These levels are symmetrical in content-substance and expression-substance, and also irrespectively of which materials they use. They are three: (1) the semiotic substance *par excellence*, i.e. the level of social, collective perceptions, which belongs to his stratification in the strict sense and which he also calls “immediate substance”;⁶ (2) the socio-biological level; (3) the physical level (fig.3).

6. This is probably an unfortunate choice, as the whole point of Hjelmslev’s position is that there is nothing ‘unmediated’ in substance, much less in its primary level. What he means is that this level of substance is in immediate proximity to the sign-function and of immediate pertinence from the semiotic point of view.

	CONTENT		EXPRESSION	
	(Sed) content-form		(Ser) expression-form	<i>sign-function articulations</i> FORM
SEMIOTIC	content-substance 1		expression-substance 1	SUBSTANCE Level 1 <i>social perceptions</i>
EXO- SEMIOTIC	content-substance 2		expression-substance 2	Level 2 <i>socio-biological</i>
	content-substance 3		expression-substance 3	Level 3 <i>physical</i>

Fig. 3. Hjelmslev's stratification and the inner structure of substance.

Level 3 depends on both levels 1 and 2, whereas level 2 depends on level 1. This does not mean that the existence of the physical entities as such depends on the semiotic substance. What depends on it is their selection that constitutes them as relevant to the semiotic system. It is also important to understand that “the level of perception, or immediate semiotic substance, does not necessarily cover the entire domain of the other levels” (68). Therefore, for example, when one writes the characters of the alphabet, colour is of no semiotic interest, while in the case of a road signal colour is a part of the semiotic substance. The fact that the first level of substance does not necessarily cover the entire domain of the other levels, along with the independence of form from substance, lead us to the *multiplicity of semiotic substances*; or, at least, of semiotic expression-substances. “One form of expression can be manifested by a diversity of substances” (57); for example, a national flag can be painted on paper or embroidered on silk or projected on a wall. There are at least as many substances as semiotic systems, considering that a substance depends upon and cannot exist without its corresponding form. There must be more, as a matter of fact, because each system can be and often is manifested by many substances.

We have seen that Saussure's *Cours* leads to the definition of language as “a form, not a substance” (169). It disconnects signification from any particular medium, either in the ontological or the phenomenal sense, and opens the possibility of subsuming all the different modes of expression under the aegis of a unified science (33). Hjelmslev's “stratification of language”, which he admits should have been called “stratification of the semiotic system” (46), clarifies the Saussurean position. Its complete symmetry has two immediate results. On the one hand, it puts all semiotic systems on an equal status. It makes clear that all expression-materials are equivalent to each other and that they have no necessary

connection whatsoever with any specific semiotic system. Moreover, it shows that the content also is comprised of content-form and content-substance, and there is nothing essential about content-substance either. On the other hand, the double distinction of the stratification makes clear the fact that the sign-function is directed toward the world in two ways, through content-substance and through expression-substance. This is a property that traditional models of the sign seem to have underestimated.

Implications of Hjelmslev's de-essentialisation of substance

Hjelmslev's stratification introduces several innovations with regard to the definition of substance. His most radical propositions are the equivalence of substances and the symmetry between expression-substance and content-substance. These may have significant implications when our study extends beyond natural languages.

Firstly, the definition of language by its form alone, and the complete dependence of semiotic substance on semiotic form, must imply that the definitional distinction between different semiotic systems is a question of form and not of substance. We can no longer define semiotic systems according to the materials in which they are manifested. This becomes crucial when transferred from the difference between semiotic systems, such as English as opposed to French, to the difference between *kinds* of semiotic systems, or rather of "modes of sign production" as Umberto Eco puts it (*A Theory of Semiotics* 157), such as the natural languages as opposed to the languages of cinema. When trying to differentiate between kinds of semiotic forms, several issues arise, such as determining which elements pertain to form and whether form is purely differential. Moreover, as semiotic form is comprised by the insoluble connection between content-form and expression-form, the quest for the different kinds of form affects equally the expression-plane and the content-plane. The multiplicity of the kinds of *expression*-planes is not so difficult to conceive; however we are not accustomed to thinking of different kinds of *content*-planes. We intuitively suspect that the content-planes of non-verbal semioses must be of a different kind than that of the natural languages; the most professional and detailed description of a film in words cannot give you all the meaningful information conferred by the film. For this reason, in the movement between different kinds of semiosis, issues arise of necessarily partial or reductive translation (Eco, *Theory* 173).

Secondly, the boundary between the semiotic and the exo-semiotic is situated between levels 1 and 2 of semiotic substance. Level 1 of semiotic substance is the easiest to demarcate, both in the expression-plane and the content-plane, as much for verbal semioses as for non-verbal ones. However, this is not the case with levels 2 and 3. With regard to the expression-plane of natural languages, Hjelmslev's distinction is clear: the socio-biological level 2 refers to the myokinetic aspects of producing and receiving the sounds; while the physical level 3 is the sound-wave as such. However, there are certain complications when one studies a case when a tool has been used in sign-production, such as a brush or a camera, which is neither socio-biological nor part of the material residue of

the sign; or a case when the bodily mechanism and the material residue partially coincide, as in the performative arts. With regard to the content-plane, level 2 of the content-substance is comprised of

the socio-biological conditions and psycho-physiological mechanisms [...] allowing to the speaking subjects [...] to create, reproduce, evoke and handle in different ways the elements of appreciation (“Stratification” 61-62);

while level 3 is comprised of the physical entities used as raw material for the community’s apperceptions. Alexandros Ph. Lagopoulos argues (“Quest” 109), and I agree, that Hjelmslev’s level 3 of the content-substance should be interpreted as linked to the referent. We will not here enter the complex discussion regarding the definition of the referent, which must be abstract and conventional (Eco, *Theory* 66). One should notice, however, that as Hjelmslev’s level 3 of content-substance is selected by form, it cannot be identified with the realm of the independently and concretely existing world, something which indeed reinforces its correspondence to the referent. The distinction between levels 3 and 2 of substance is problematic in both planes. I think that it is loosely structured on a distinction between object and mechanism, between thing and action. A possible interpretation is implied by the use of the term “conditions” in the description of level 2 of the content-substance, which we will investigate further.

Hjelmslev’s levels 2 and 3 of expression-substance appear already in Saussure’s *Cours*, although not so systematically classified, as they stem immediately from Saussure’s communication circuit (20-30, 37, 66, 98, 157). Saussure distinguishes between the ‘material’ and ‘sensuous’ parts of the sound, which correspond to Hjelmslev’s level 3 and level 1 of expression-substance; as well as between speech as mechanism of articulation or hearing and as acoustic phenomenon, which in turn correspond partially to Hjelmslev’s levels 2 and 1 of expression-substance. An intersection of the sign-function with the circuit of communication unavoidably takes place in the exo-semiotic levels of expression-substance, as they constitute the “channel of communication” in terms of communication theory (Eco, *Theory* 53). Jakobson summarises the circuit into six determining factors: the addresser, the message, the addressee, the context, the code and the contact (i.e. the physical channel) (66; see also Eco, *Theory*; Lagopoulos, “A Global Model of Semiotics”).

The intersection of the sign-function with the communication circuit causes a certain redoubling of the exo-semiotic substance, because of the differentiation between the sides of *production* and *reception* of the message. Hjelmslev’s level 2 of expression-substance is clearly distinguished into the productive and the receptive mechanisms. Level 3 of expression-substance is the material trace, the element transferred between the addressee and the receiver, making communication possible; therefore, ideally unique. Nevertheless, practically it also often has aspects incorporating the difference between production and reception, including the dialectics of production and reproduction. For example, what is the level 3 of cinema’s expression-substance: the light and shadows that are

projected on the screen, or the ones traced on the film, or the celluloid itself that makes possible their repeated re-projection? Then, level 3 of the content-substance, the referent of a successful communication, should be common between the addresser and the addressee. However, practically communication is always partial, and scientifically it is meaningful to study the potential divergence. Finally, level 2 of the content-substance, which seems to be comprised by the conditions forming the speaking subjects' appreciation, could easily be distinguished into those pertaining to the addresser's appreciation formation and those pertaining to the addressee's. Therefore, a more exact formulation of the sign-function would incorporate the sides of production and reception into the exo-semiotic substance (fig.4).

		CONTENT		EXPRESSION		
		(Sed) content-form		(Ser) expression-form		sign-function articulations FORM
SEMIOTIC	content-substance 1		expression-substance 1		SUBSTANCE Level 1 social perceptions	
	production con-s 2	reception con-s 2	reception ex-s 2	production ex-s 2	Level 2 socio-biological	
EXO- SEMIOTIC	production con-s 3	reception con-s 3	reception ex-s 3	production ex-s 3	Level 3 physical	

Fig. 4. Introducing the production-reception distinction in Hjeltslev's stratification.

In an effort to introduce the concept of *productive praxis* in semiotic theory, Lagopoulos recognises three articulations of the semiotic with the exo-semiotic, from the point of view of production: (I) the *articulation of production*, which lies in non-codified ideology and through which codified ideology is incorporated into the semiotic; (II) the *articulation of manifestation*, which is the relation to the expression-material; and (III) the *parallel articulation*, which is created by the fact of reference. Correspondingly, he defines three exo-semiotic realms: the "exo-semiotic I", which is the material process of production; the "exo-semiotic II", which is the material of expression; and the "exo-semiotic III", which is comprised by the referents ("Semiotics and History: A Marxist Approach" 235-6) (fig.5).

	the articulation of the semiotic with the:	
Articulation of Production	EXO- SEMIOTIC I	= the material process of production
Articulation of Manifestation	EXO- SEMIOTIC II	= the material of expression
Parallel Articulation	EXO- SEMIOTIC III	= the referents

Fig. 5. Lagopoulos's articulations of the semiotic with the exo-semiotic.

He sees Hjelmslev's level 3 of content-substance as more or less corresponding to the exo-semiotic III; and Hjelmslev's level 3 of expression-substance to the exo-semiotic II (1985, 109). The crux of his proposition is the definition of exo-semiotic I – in which he includes Hjelmslev's level 2 of content-substance – as the material process of production. I think that it should be understood as a condition of possibility and might be linked to a generalised concept of context. Lagopoulos says nothing about Hjelmslev's level 2 of expression-substance. I think it could belong to exo-semiotic I. It is clear that in Lagopoulos's definition, the exo-semiotic I pertains to the content-plane; however, the process of material production constitutes the condition of possibility of the expression-plane too. One could, therefore, conceive the exo-semiotic I as condition of possibility for both planes. The main divergence between Lagopoulos's exo-semiotic I and Hjelmslev's level 2 of substance lies in the direction of their causal connection to the semiotic. The tension may be resolved through the notion of condition of possibility, as opposed to a deductive causality. (fig.6)

		CONTENT		EXPRESSION	
		content-form		expression-form	
		content-substance 1		expression-substance 1	
SEMIOTIC EXO-SEMIOTIC	EXO-SEMIOTIC I	content-substance 2		(EXO-SEMIOTIC Ia) expression-substance 2	
	EXO-SEMIOTIC III	content-substance 3		EXO-SEMIOTIC II expression-substance 3	

Fig. 6. Lagopoulos's articulations and their correspondence to Hjelmslev's stratification.

The concepts of *context* and/or *situation* necessarily appear in an investigation of semiosis from the point of view of communication, and relate to an analysis at the level of message/text. Context is the environment where a text appears. It can be defined with different degrees of generalization, starting from its immediate linguistic environment and spreading to the general situation in which it appears (Greimas & Courtés 66-67; Sebeok 151; Ducrot & Schaeffer 764). In interpretation, the situation of production is privileged with regard to the determination of referent, as is the intended initial situation of reception, which historically tend to be close to each other. I think that Hjelmslev's level 2 of substance, as well as Lagopoulos's exo-semiotic I, can be linked to the situations of production and reception. Actually, I think that a part of content-substance 2 and

a part of expression-substance 2 belong to the situation of production; while the rest of both levels belong to the situation of reception. (fig.7)

		CONTENT		EXPRESSION		
		(Sed) content-form		(Ser) expression-form		<i>sign-function articulations</i> FORM
SEMIOTIC		content-substance 1		expression-substance 1		SUBSTANCE Level 1 <i>social perceptions</i>
EXO-SEMIOTIC		P-con-s 2 exo-s I P-situation	R-con-s 2 R-situation	R-ex-s 2 R-situation	P-ex-s 2 exo-s Ia P-situation	Level 2 <i>socio-biological</i>
		P-con-s 3 exo-semiotic III REFERENT(S)	R-con-s 3	R-ex-s 3 exo-semiotic II CHANNEL(S)	P-ex-s 3	Level 3 <i>physical</i>

Fig. 7. Combined model of the sign-function: the bridge of form and the ways toward the outside.

At this point, we should parenthetically address an issue with regard to the different definitions of ‘function’. On the one hand, Hjeltmslev’s *sign-function* is a logical entity of a meta-semiotic order, which describes what is common to every signifying entity, from the level of language to the smallest signifying articulation, i.e. the relation between a content-plane and an expression-plane. On the other, Jakobson analysed the ways we use signifying entities (messages/texts). He systematised these uses into his six *functions of language*: the referential, the emotive, the conative, the phatic, the metalingual, and the poetic. Let us call them *s-functions* (semiotic functions). All s-functions are part of the potential of the sign-function; while all sign-functions share the fact that they produce signification, i.e. they share a general semiotic ability-function. This function is of a different order than s-functions. Let us call this order of function *u-function* (ultra-function). Now, while all human products and practices are signifying, i.e. they have a semiotic u-function, this is not the only u-function they perform. They may be tools or commodities, for example. The articulation between the semiotic u-function and the non-semiotic u-functions of the same entity is a two-ways causality and constitutes a complex problem. Particular interest for this aspect has the study of semiotic systems of which the primary u-function is not semiotic, such as architecture and clothing (see Barthes; Eco, *Theory*; Lagopoulos, “Quest”).

We have investigated the multiple articulations of the sign-function with its outside. In summary, the sign-function can be construed as a *form* bridging two *substances*. There are two directions of the sign’s relation toward the *exo-semiotic* reality: through the content-plane and through the expression-plane.

The specificity of cinema as relation to the exo-semiotic

The articulation of the sign-function with the exo-semiotic, as formalised by Hjelmslev's stratification, is highly relevant to a theory of cinema. In the early 20th century, the beginnings of cinema theory were haunted by the effort of its legitimisation, which led to the need to compare it with and model it on other kinds of expression, while also defending its specificity. This situation was repeated and re-conceptualised in the 1960s, when the question was no longer whether cinema should be included in the arts but in the objects of semiotic study. Cinema's expression-plane, and particularly its expression-substance, as well as its relation to its referent have been considered as its definitional specificities in both cases.

Cinema as a language or writing is a notion almost as old as theory of cinema itself, widespread from Riccioto Cannudo and Louis Delluc to Béla Balázs and Jean Mitry. However, it is always important to clarify on which definition of language such a comparison relies, and whether it is meant structurally or metaphorically. It is interesting to note that the theory of cinema had a very early intersection with European semiotics, even without an immediate connection to Saussure's theory. In the 1920s in Moscow, under the aegis of Russian formalism, the linguists and literary critics that were to form the Prague Circle co-existed and interacted with the filmmakers and theorists of the Soviet Montage movement. The texts by Boris Eikhenbaum, Viktor Shklovsky and Juri Tynianov, as well as the films and texts by Lev Kuleshov, Vsevolod Pudovkin, Sergei Eisenstein and Dziga Vertov comprise an extensive semiotically-aware corpus. They all give particular attention to the differential nature of the way cinema produces signification, focusing on the signifying potential of editing (montage) as demonstrated by the Kuleshov experiments.

Semiotics of cinema as a discipline was founded on the "Metzian rift", which introduced a new paradigm in the theory of cinema (Casetti 103). Its inaugural text was Christian Metz's "Le cinéma: langue ou langage?" which appeared in 1964, in the now famous issue of the journal *Communications* which also included Roland Barthes's "Éléments de sémiologie". Metz, after a very long argumentation about why cinema is *not* a *langue*, still concludes his essay with the exclamation "il faut faire la sémiologie du cinéma" (90), which can be translated both as "we must practice cinema semiotics" and as "we must create the semiotics of cinema". The semiotics of cinema have since had a complicated history, ranging from the contributions by Umberto Eco to these by Pier Paolo Pasolini, from the British journal *Screen* to the School of Moscow/Tartu, from its post-structuralist intersections with feminism and psychoanalysis to its amalgamation with Peircean pragmatism, neo-formalism and cognitive psychology. The main references of the present text are Metz and Eco.

A semiotic approach to cinema needs to answer the following definitional questions, already opened by Metz's inaugural text: (a) whether it is appropriate to study cinema as semiosis and (b) what kind of semiosis it is. The first question is implicitly answered in the affirmative by the very act of a semiotic approach, although it is left to be argued why it is so. Then comes the need to define what is

particularly “cinematic” about cinematic semiosis. This means, firstly, the distinction from the other kinds of semioses, which amounts to the question of specificity. Secondly, it means the distinction between what is cinematic as opposed to what is filmic, in other words what belongs to the code of this semiosis and what to the messages/texts it produces. Finally, it also means distinguishing those elements of cinema that belong to the realm of the semiotic from those that don’t, considering that, apart from a signifying mechanism, cinema is also a social institution, including an economy, a technology and a power structure.

A common strategy in defining non-verbal semioses has been to compare them to natural languages. The crucial decision is, of course, which characteristics of the natural languages should be considered fundamental for the definition of semiosis in general. The recurrent dangers are either a forced similarity or an exaggerated essentialist differentiation, both of which appear in cinema semiotics. We shall not here enter this complicated debate, which includes a plethora of questions about cinema’s degree of systematisation, articulations and grammar. Suffice it to say, following Eco, that “semiotic systems do not necessarily have two articulations; [and that] the articulations are not necessarily fixed” (*Theory*, 231).

The present paper considers cinema as a signification system, by which we mean that which underlies the way that every film produces meaning and which makes this production of meaning possible. It addresses two facets of the discussion of cinema’s specificity, both of which concern its articulation with the exosemiotic, and refrains from commitment with regard to other definitional issues.

A common difficulty with regard to cinema’s inclusion in semiotics proper has been its (assumed) motivated relation to its referent reality. In order to formulate the terms of the problem, an aspect of Charles Sanders Peirce’s theory can be of use. One of the trichotomies proposed by Peirce classifies signs, according to their relation to the referent object, into *icons* (similar to it), *indices* (causally connected with it) and *symbols* (arbitrarily linked with it). The two first categories would not fulfil Saussure’s demand for the social construction of reference. Cinema semiosis has been conceptualised both in terms of iconicity and indexicality; in the first case, together with the rest of the visual arts, and in the second, together with photography.

Before verifying whether cinema’s sign-function is iconic and/or indexical, one has to investigate whether the so-called iconic and indexical signs indeed have a natural relation to their referent. Umberto Eco refutes this fundamental precondition of the discussion. He considers the icon-index-symbol trichotomy as “untenable”, first and foremost because it “postulates the presence of the referent as a discriminant parameter” (*Theory* 178). One must remember that the referent is not really an object but an abstract entity and a cultural convention (66), while – most importantly – signification has nothing to do with the existence of a corresponding object (62). That is why we can invent stories about the gods and tell lies. Moreover, Eco explains that the terms iconicity and indexicality cover a variety of phenomena which function in different ways. He proceeds to show the conventional character of the constitution of all so-called

iconic and indexical connections, one of his central arguments being that we need to learn to recognise them as such.

The concept of iconic sign re-introduces the structure of representation, which was emptied by the Saussurean definition of semiosis, by attributing particular metaphysical properties to the image. Eco investigates several aspects of this concept (viii, 178, 190-217, 231-4). Firstly, the image is often considered as a non-analyzable primal entity. This would mean that the frame is the absolute *primum* in cinema sign-function, as Metz seems to think (Eco, *La structure absente* 220; “Articulations of the Cinematic Code” 591). However, Eco proceeds to show that the image is both analyzable and coded. Inspired by Prieto, he proposes a list of the codes pertaining to the image and their articulations, and then a classification of all codes according to their articulations, including the cinematic triple articulation (*Structure absente* 596-8, 601-3; “Articulations” 215-7, 225-7; *Theory* 231-4). Secondly, the traditional philosophical definition of the image relies on the concept of similarity. This resurfaces in Peirce’s definition of the iconic sign as linked to its object by similarity. Eco begins by problematising the concept of similarity itself, showing that its definitional relation to the image is circular. He then proceeds to show that the recognition of similarity between images and objects is conventionally constituted. Thirdly, the image is sometimes considered as caused by the object, as is the case of an imprint, which leads us to the discussion of the concept of index.

The concept of index is defined through a causal link or a physical connection to the object. Eco’s critique of the concept intersects with many parts of his theory of semiotics (*Theory* 115-9, 161-5, 178, 186, 190, 219-224). Firstly, he observes that the signification of the so-called indexical sign does not really depend on its connection to its object, because it exists irrespectively of the existence of its supposed cause. For example, smoke as a sign of fire continues to signify it even if there is no fire at all and it is caused instead by dry oxygen. The inferred cause is “pure content” (221). Secondly, the very act of inference, i.e. the attribution of causality, relies on a convention. Thirdly, the choice of this particular perceptual unit as a signifier for this particular content-unit, i.e. the constitution of the sign as a sign, is again completely conventional.

In the case of photography and cinema, however, the issue of indexicality appears in its more literal sense. The traces on film made by the physical, mechanical and chemical interaction between light, camera and film are indexical not as signs but as physical objects. They do constitute proof of existence of something; the question is, of what. Using Hjelmslev’s model, one realises that this link does not connect the signified (content-form) to its referent (content-substance 3), but the material trace (expression-substance 3) to its material conditions of production (expression-substance 2). Therefore, it does not affect the conventional nature of photographic (and cinematic) semiosis.

Another difficulty that non-verbal sign-functions display with regard to their inclusion in the Saussure-Hjelmslev lineage of semiotics has been our need or habit of defining them by the materiality of their expression-plane. Metz actually

argues that one wouldn't know how to define cinema without referring to its "signifying materials" (*Langage et cinéma* 10). Eco admits that one can classify signs according to their "channel", but this wouldn't be very informative with regard to the way they signify, as it would group together "both Beethoven's *Ninth Symphony* and Dante's *Divina Commedia* among the acoustically channeled signs" (*Theory* 175). However, there is a nucleus of truth in Metz's observation, which I will attempt to identify.

Metz's theory relies on the definition of three entities of different epistemological order: "*langue*", "*langage*", and "*code*". For the distinction between *langue* and *langage*, he refers to both Saussure's distinction between *langue* and *langage* (*Cours* 23-27), and Hjelmslev's distinction between *schema* and *norm* ("Langue et parole" 77-89). I think that Metz's concept of *langage* is quite close to Hjelmslev's concept of *norm*. Hjelmslev's *schema* is the semiotic system as pure form and corresponds to Saussure's *langue*. *Norm*, conversely, is defined as the "material form" and is the semiotic system including the level of semiotic substance (substance level 1). (fig.8)

Institution		Execution	
Social		Individual	
Restricted		Free	
SCHEMA	NORM	USAGE	ACT

Fig. 8. Hjelmslev's facets of the semiotic phenomenon.

Metz's significant alteration of Hjelmslev's definitions is the possibility of a *norm* existing without an underlying *schema*. Conversely, I think that Saussure's *langage* should be interpreted as the general ability to create signs, and that there is no indication that it is connected with a specific material support; therefore, it bears little resemblance to Metz's synonymous concept. I will call Metz's concept "*M-langage*". With regard to *langue*, Metz chooses an interpretation of Saussure's definition so restricted and closely modeled on verbal languages that it obliges him to deny its existence outside them. However, even if one accepts the restricted definition of *langue* as a sign-system of *specific characteristics*, this hardly dissolves its epistemological order, i.e. the order of system-structure as a condition of possibility for the production of specific messages.

Metz also distinguishes between (*M-*)*langages*, which he defines as *physically* homogeneous groups of messages, and *codes*, which he describes as *systematically* homogeneous groups of messages. He explains that a *code* may be specific to an *M-langage* or to have multiple manifestations or even universal manifestation, while many *codes* may exist in a single *M-langage* (*Langage et cinéma* 168). However, one has to realise that Metz's *code* is of a different epistemological order than a *langue*, although – in another sense – *langue* is also a code. *Codes* in Metz's texts involve and organise signs at the discursive level, as is the case in the analyses by Barthes and Greimas. *Langues* or semiotic systems are codes in the sense of constituting the signs as such. An im-

portant contribution of Metz to semiotic theory is the transition of the discursive unit from message to text, where many *codes* co-exist (Eco, *Theory* 57). The dissolution of the unity of the message, nevertheless, does not affect the necessity of positing the existence of codes of the order of generating structure.

Metz in “Le cinéma: langue ou langage?” concludes that cinema is “a *langage* without a *langue*” (61). In *Langage et cinéma*, he clearly states that “film and cinema are opposed to each other as a real object and an ideal object, as *énoncé* and *langue*” (17). He then differentiates this formal definition of cinema from that other entity, which is more concrete and “of the same order as film”, which is also named “cinéma” by an implicit theory, i.e. the *M-langage* of cinema. If one adds to these definitions the conclusion of “Cinéma: langue ou langage?”, the implication is that there is no such thing as a cinematic kind of sign-function at the level of form. In Hjelmslev’s terms, there is no *schema* of cinema. We are left with the *M-langage* of cinema and the various *codes* that may be manifested in it.

In this context, it is not really surprising that there is a constant terminological slippage between “cinéma” and “film”. The *M-langage* of cinema is successively called: “cinéma”, “the filmic discourse”, “the film as (M-)langage”, “the cinematographic discourse”, “the cinematographic (M-)langage”, “the ‘film’” (“Le cinéma” 71; 1971, 10, 17-8; “Sémiologie audiovisuelle” 112-3). In constant reference to Hjelmslev, whom he is well aware he is working against, this entity is defined by five elements, whose exact nature is also shifting (fig.9). Considering that the texts cover a span of nine years, it is reasonable to assume that they bear witness to an evolution in Metz’s theory. In the 1964 text, the elements were conceived as independently existing codified languages, “expressivities” – some old, one new. In the 1971 text, they have changed into “sensible supports”, “material support”, “signifying materials”, “physical nature of the means of expression”, and – with an immediate reference to Hjelmslev – “*expression-material(s)*”. This last term persists in the 1973 text, with the additional description as “materiality of the signifier” and “categories of the materiality of signals”. (fig.9) It is the term “*matière de l’expression*” (*expression-material*) which should be considered the definitive one, because Metz elaborates extensively on its choosing in a section under the title “‘Forme/matière/substance’ chez Hjelmslev” (*Langage et cinéma* 157-160). He explains that he uses the term *matière* on purpose instead of the term *substance*, because he thinks that the essential opposition in Hjelmslev’s thought is between *form* and *matter*, while the concept of *substance* is derivative. Metz is quite right that the conceptual structure of Hjelmslev’s model relies on an opposition between form and matter. However, his interpretation underestimates the fact that Hjelmslev’s substance is selected by form, in a single-direction relationship, while matter beyond semiotic formation falls outside our ability of perception. Moreover, Metz conflates the different levels of Hjelmslev’s model; both the semiotic and the exo-semiotic, as well as the substance and the material.

title	<i>Le cinéma: langue ou langage ?</i>	<i>Langage et cinéma</i>		<i>Sémiologie audio-visuelle et linguistique générative</i>
date	1964	1971		1973
pages	71	10	17-18	112-113
entity under definition	<i>le « cinéma », le discours filmique</i>	<i>le film comme langage, le discours cinématographique</i>	<i>le « cinéma », le langage cinématographique</i>	<i>le « film »</i>
definitional characteristics	<i>formes d'expression, expressivités</i>	<i>supports sensoriels, support matériel, matières signifiantes</i>	<i>nature physique des moyens d'expression, matière(s) de l'expression</i>	<i>matérialité du signifiant, matière de l'expression, catégories de matérialité des signaux</i>
1	<i>l'image</i>	<i>l'image</i>	<i>images photographiques mouvantes</i>	<i>images photographiques, mouvantes et multiples</i>
2	-	<i>le tracé graphique des mentions écrites</i>	<i>mentions écrites</i>	<i>tracés graphiques</i>
3	<i>la parole</i>	<i>le son phonétique des « paroles »</i>	<i>paroles</i>	<i>son phonique enregistré = les « paroles »</i>
4	<i>la musique</i>	<i>le son musical</i>	<i>musique</i>	<i>son musical enregistré</i>
5	<i>les bruits</i>	<i>le bruit</i>	<i>bruits</i>	<i>bruit enregistré</i>

Fig. 9. Metz's 5 elements defining the M-language of cinema.

According to Metz, the M-language of cinema is defined by its expression-material which is comprised by:

- the image, the speech, the music, noises (“Le cinéma” 71)
- [or] the image, the graphic trace of written mentions, the phonetic sound of “speeches”, the musical sound, the noise (*Langage et cinéma* 10)
- [or] moving photographic images, written mentions, speeches, music, noises (*Langage et cinéma* 17-8)
- [or] moving and multiple photographic images, graphic traces, recorded phonic sound, recorded musical sound, recorded noise (“Sémiologie audio-visuelle” 112-3).

As we have already noted, one can observe a displacement from the definition of the elements as independent semiotic systems toward a more physical determination. The final formulation is the most consistent internally, and is clearly defined by the physical nature of the signifier from the point of view of “emission technique”. I think that Hjelmslev would not agree that what Metz describes are expression-materials, as they are obviously already selected by form. I also think that what Metz describes is a mixture of all three levels of Hjelmslev’s expres-

sion-substance. For example, the property of a sound as “musical” cannot be determined in the exo-semiotic levels of expression-substance; then again, its property of being “recorded” implies its physical existence; this, however, includes the sound-wave, the material of recording, as well as the machines and processes of recording and reproduction.

Metz argues that a specificity of cinema is that it is “composite” in the level of its expression-material. As he defines M-language by the expression-material, he goes on to argue that several M-languages are contained in cinema. Even if one does not accept Metz’s definition of M-language, one can still agree with these observations, by adding another level of complexity. The claim that the expression-material (or rather the expression-substance) of cinema is composite and the claim that cinema semiosis includes as sub-sets other kinds of semiosis are both true, I think, but they are not identical. Then, the use of many different codes is another order of complexity (a second one by Metz’s account, third by mine). Metz introduces the concept of *heterogeneity*, by which he refers to codes. Cinema is heterogeneous because it uses many codes. I propose the use of the term *heterogeneity* to describe all the different orders of complexity pertaining to cinema.⁶

To return to Metz, the definition of M-language is distinctively un-Hjelmslevian. Hjelmslev would not define a language by its expression-substance, much less by elements of its extra-semiotic materiality. On this issue, Metz explicitly enters the debate between the semiotic schools of Prague and Copenhagen, taking the side of Prague (*Langage et cinéma* 165-167). The suggestion is that “the very form would be different if it was inscribed in a different material” (165). This is reformulated in more specific terms as “[codes] cannot be manifested in no matter which (M-)language”; which is true but does not constitute a proof of the previous assertion. Metz argues for the existence of “pertinent traits” of the expression-substance. I think that he is right; however, the existence of pertinent traits does not mean that the material affects the form but rather that particular kinds of materials can support particular kinds of form. Moreover, these pertinent traits – such as the spatial dimensions and temporality – seem to me to be mostly elements of form and not of concrete materiality. After all, a too-physical definition of the pertinent traits risks multiplying the kinds of semiosis *ad infinitum*, excluding from cinematic semiosis television, video, digital technologies, or animation.

Actually, one should note that there is a kind of message/text which involves the exo-semiotic elements of expression-substance: art. As Eco observes, in the artwork the expression-substance becomes important, in different ways and degrees down to its exo-semiotic levels. However, I don’t think that this observation regarding texts can contribute to the systematization of the kinds of semiotic systems.

Unlike Metz, Eco defines cinematic semiosis not as a particular materiality or technology, but through the triple articulation of cinema’s sign-function, i.e. in terms of form:

6. The term has already been used to refer to the five elements of cinema’s expression-substance (see Aumont et al., 138-139).

It seems to me that the only instance of third articulation can be found in cinematographic language. Suppose [...] that in cinematographic frame there are visual non-significant light phenomena (*figurae*) whose combination produces visual significant phenomena (let us call them ‘images’ or ‘icons’ or ‘super-signs’). And suppose that this mutual relationship relies on a double articulation mechanism. But in passing from frame to shot, characters perform gestures and images give rise from a temporal movement, to kinesic signs that can be broken into discrete kinesic *figurae*, which are not portions of their content (*Theory* 233-234; see also “Articulations” 601-603; *Structure absente* 225-227)

Therefore, cinema’s expression-form relies on a two dimensional spatiality to which is added the temporal dimension.

In the cinematic code (in the sense of language), Eco includes only the moving image; he does not include the audial elements, which he considers to interact with the cinema language in the filmic message. Metz too considers as specifically cinematic (discursive) codes of the M-language the ones pertaining to the moving image; but he considers the audial elements as equally intrinsic to the definition of the M-language of cinema. While I would agree with Eco that there is a cinematic code in the sense of semiotic system, I would disagree with his exclusion of the audial elements from it. I would propose the possibility that the relations of the visual to the audial elements can be conceived as additional articulations in a multidimensional model.

A provisional attempt to apply Hjelmslev’s stratification to cinema could propose the following organization: Cinema’s form multiply articulates its semiotic substance, in a way that combines Eco’s triple articulation and the articulations of audial elements. Cinema’s expression-form relies on two spatial dimensions and one temporal dimension. Its expression-substance 1 is comprised of the perceptive image of moving light and shadows, as well as sound. Its production-expression-substance 2 includes the processes and conditions of *mise-en-scène*, shooting, post-production etc. Its reception-expression-substance 2 includes the processes and conditions of reproduction, projection etc. Its expression-substance 3 includes everything from light and sound waves to the recording materials. (fig.10)

We have seen two aspects of the semiotic study of cinema: on the one hand, Eco’s exposition of why there is no natural connection between cinema’s sign-function and its referent; on the other, Metz’s drawing attention to the composite nature of cinema’s expression-plane, from form to exo-semiotic substance, and his effort to systematise the elements composing it. Their argumentations re-organise the discussion about cinema’s specificity and refute the two historical misconceptions entangled with it: the “realist”, i.e. the mistaking of cinema as an immediate way to reach the referent, and the “reductivist”, i.e. cinema’s reductive translation into words or dramaturgy.

	CONTENT		EXPRESSION		sign-function articulations FORM
	content-form		expression-form (2 spatial & 1 temporal dimensions)		
SEMiotic	↔		↔		SUBSTANCE Level 1 <i>social perceptions</i>
EXO-SEMiotic	content-substance 1		expression-substance 1		Level 2 <i>socio-biological</i>
	P-con-s 2 conditions of material production	R-con-s 2 conditions of material reception	R-ex-s 2 reproduction, projection etc.	P-ex-s 2 mise-en-scène, shooting, post-production etc.	
	P-con-s 3 referent(s)	R-con-s 3	R-ex-s 3 light/shadow & sound-wave, recording materials etc.	P-ex-s 3	
					Level 3 <i>physical</i>

Fig. 10. Hjelmslev's stratification applied to cinema.

Conclusions

This paper has attempted a marriage between cinema semiotics and Hjelmslev's stratification, investigating the articulation between the semiotic and the exosemiotic realms. Its starting point was the constitutional relations of the semiotic phenomenon, as defined by Saussure and Hjelmslev through the principle of fundamental semiotic arbitrariness and the model of the sign-function, which is described as a form bridging two substances. Therefore, it reaches toward the exosemiotic through two directions: its content-substance and its expression-substance. The symmetry between content-plane and expression-plane, as well as between semiotic systems, has implications for the semiotic study of non-verbal sign-functions, such as cinema. Applying this conceptual framework, the present paper offered a re-formulation and possibly clarification of the terms of the discussions around the specificity of cinema. Against the 'realist' and 'reductionist' misconceptions, it affirmed the conventional nature of cinematic reference and the composite nature of cinema's expression-plane.

Cinema semiotics, however, is of interest for a much wider public than those professionally engaged in semiotics and cinema. It even exceeds its contribution to the understanding and enjoyment of the art of cinema. As we live in a world dominated by audiovisual technologies and messages – from television to the World Wide Web, and from commercial advertisement to political propaganda – the ability to interpret them becomes a new kind of literacy, a necessary precondition for our role as conscious citizens. Semiotics provides a foundation for such literacy. Even the very abstract meta-semiotic research I have performed in this paper has very concrete implications. It has demonstrated two significant points: on the one hand, the fact that cinematic semiosis is mediated and not to be trusted at face value; and on the other, the fact that all the different elements of cinematic heterogeneity are meaningful and that in order to read an audiovisual message, one cannot limit one's attention to its verbal component. Cinema semiotics provides the tools to better understand Visconti as well as a YouTube clip, inter-media installations as well as product advertisements, *The Lord of the Rings* as much as the nine o'clock news. It turns out to be indispensable to conscious citizenship and political freedom.

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