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執行期間：九十年八月一日至九十一年七月三十一日

計畫參與人員：簡瑞碧博士生

☐ 國際合作研究計畫國外研究報告書一份

中 華 民 國 九 十 一 年 九 月 二 十 八 日

行政院國家科學委員會專題研究計畫成果報告

計畫編號：NSC 90-2411-H-002-024

執行期限：九十年八月一日至九十一年七月三十一日

主持人：張漢良（台灣大學外國語文學研究所）

共同主持人：

計畫參與人員：簡瑞碧（台灣大學外國語文學研究所）

一、中文摘要

本計畫整合藝術符號學相關理論，誠如穆卡綏夫斯基所云，文學與其他藝術本身是屬於社會文化系統中的支系統，每個支系統彼此之間有互動關係，也都有文化歷史的特定性。一九七〇年代初期，愛沙尼亞的塔爾吐學派，彷彿在回應一九二八年布拉格學派的〈芻議〉（*Thèses*）似的，提出了〈文化符號研究芻議（*tezisy*）〉。在羅特曼（Jurij M. Lotman）領軍下，塔爾吐學派對文化系統的範疇、疆界；資訊的產生與耗竭；文本與符號的關係、符號與實用者的關係；最重要的，語言作為規模系統（modelling system）的條件與功能，皆有比較全面性地發揮。案「規模系統」意謂著任何一知識皆為成分結構體，根據一些規則組合而成。文化規模系統特重語言系統，由於其包含初度規模和二度規模。文類問題很明顯的是二度規模現象。用規模系統來處理藝術時會發生一些困擾，因為藝術沒有自然語言作為初度規模。因此在作跨媒體研究時，除了要考察符徵／符旨的物質性等內外因素外，對規模的考察尤其重要。所謂規模，本係化約的類比，故為肖象符號。而語言的「初度」規模，其實已後設於語法。

關鍵詞：藝術符號學、符號、規模系統、布拉格學派、塔爾吐學派

Abstract

The project (1) provides a metacriticism of the so-called *Wechselseitige Erhellung der Künste* in the history of comparative literature studies. (2) proposes a trans-mediumistic semiotics based on indexicality rather than iconicity, which, is capable of accounting for both the 'semantic' and the 'pragmatic' aspects of literary and

artistic texts. The proposed general semiotics of verbal and visual arts develops from the functionalism of the Prague School in the 1930s and 1940s (Jan Mukařovsky, Jiří Veltruský), and the cultural modelling system of the Moscow-Tartu School in the 1960s and the 1970s (Jurij Lotman, Boris Uspenskij). Although the author does not attempt to establish any *rapport de faits* or even *points de contact* between the two schools of semiotics, his own theses in 2001 serve to link the Prague School's *Thèses* in 1928 and the Tartu School's *Tezisy* in the early 70s and enter their members into family resemblance in socio-cultural semiotics.

Keywords: semiotics of art, sign, modeling system, Prague School, Tartu School

二、緣由與目的

一九三十年代，早期法國的比較文學學家對跨藝術研究存而不論。他們認為比較文學作為文學史的一支，其目標是在重建歐洲文學史，而文學與藝術的關係研究與文學史的建構沒有關係。遲至一九六七年，Claude Pichois 與 André M. Rousseau 才在 *La littérature comparée* 中，簡略地談到文學與藝術的關係。法國傳統的比較文學研究不處理跨藝術的問題，情有可原。然而，有趣的是，美國比較文學學者基本上視文學作品為自主整體，有其法則，無法與其它藝術等量齊觀；文學與藝術的關係，為外緣研究，與文學本身沒有直接關係。總而言之，跨文藝研究在比較文學中的地位，始終妾身未明。這門學術在德國十九世紀末年二十世紀初是顯學，代表人物包括喀荷（Max Koch）、吳傅林（Heinrich Wöfflin）和瓦策（Oskar Walzel）。套用瓦策的話，這門學問為「文

藝相互輝映」(*Wechselseitige Erhellung der Künste*)。在美國的傳人賽佛(Wylie Sypher)談文藝斷代的風格準則,大體上沿襲吳傅林等人的學術。繼承這個傳統的外斯坦(Ulrich Weisstein)教授在1968年撰寫《比較文學論》(*Einführung in die Vergleichende Literaturwissenschaft*)【英譯1973年】的時候,單獨闢章專論,視「文藝相互輝映」為一合法的領域。然而,從吳復林到外斯坦,縱然在討論斷代風格,比較文學家鮮少汲取符號學的营养。國內近年流行跨領域研究。六〇年葉維廉接踵佩脫(Walter Pater)論「出位之思」(*Anderstreben*),鎔文學、藝術於一爐,算是殊例;隨著學術思潮的演變,科際疆界的泯滅,這幾年台灣跨藝術整合的風氣鼎盛,「互文性」成為時髦名詞。深究之下,多數研究比較關注的是廣義的詮釋問題,尤其是以精神分析和意識型態立論的,身份、性別,族群等利益立場的介入現象;很少有人繼續探討形式問題,彷彿它已經被解決了似的。這些看似「語用陳述」(pragmatic discourse)多為主題學(*Stoffgeschichte*)的借屍還魂。之所以如此,主要原因是論者缺乏嚴格的符號學訓練。

三、結果與討論

為執行本計畫主持人於九十學年度第一學期開設跨媒體符號學專題研究,對藝術符號學的歷史發展及相關課題做了詳盡深入的探討,課程說明及書單請參見頁4。課程探討的主要著作為Ernst Gombrich之*Art and Illusion*以及Juri Lotman關於文化符號學之經典著作*Universe of the Mind*,授課結束後並赴愛沙尼亞塔爾吐大學出席紀念羅特曼八十冥誕國際學術研討會,會議議程見頁40-44,主持人與博士生之心得報告見頁5-6、頁22-24。主持人發表論文"Is Language a Primary Modeling System? On Lotman's Semiosphere",見頁7-21,探討羅特曼符號圈(semiosphere)之規模與再現功能。博士生發表論文"Schemata as the Primary Modeling System of Visual Arts",見頁24-35。出

席此次會議亦奠定與塔爾吐學派合作之契機,結識塔爾吐大學符號學系重要學者如Peeter Torop(專長為跨文化翻譯研究)、Mihhail Lotman(專長為文化與詩研究)、Kalevi Kull(專長為生物符號學),商討貴我雙方學術合作之可能性。該校對台灣學者竟有興趣研究塔爾吐符號學頗表感佩,同時也具體討論合作事宜,案出席會議之前本計畫主持人已向國科會提出三年計畫—符號學的生命基礎—以塔爾吐學派為例。此次出席會議有些許感想值得一記,所謂英雄所見略同,主持人與博士生所發表的論文為會中各方討論的焦點,博士生所發表之論文與聖彼得堡大學Leonid Tchertov教授之論文有頗多相似之處。Kalevi Kull所指導之碩士生也以視覺符號為論文主題,而義大利席也那大學Massimo Leone博士則對宗教藝術的再現有廣泛的研究。我等趁出席之便亦購置塔爾吐符號學系之出版物,如*Sign System Studies*。本計畫進行之後半年,博士生則提案與本系奇邁可教授進行獨立研究,主要檢視西方藝術文本中如何營造出三維或多維幻覺的方法、空間與人文思想的互動,以及藝術史中不同階段的文藝復興與文藝再生(Renaissance and renaissances),課程大綱與修課報告見頁45-55。博士生同時亦修習魏思博助理教授之米爾頓與歷史,修課報告則以肖像發展史討論米爾頓晚期作品《失樂園》中跨肖像、建築、詩作型式之相互輝映,見頁56-68。藝術符號學的範圍極廣,非一年可能為功者,以上成績稍可告慰,重要的是透過Gombrich對圖式(schema)以及Lotman對符號圈(semiosphere)論述的探討使得主持人與博士生對相關概念產生追本溯源、深入探討的興趣。因此主持人於九十一學年度第一學期開授皮爾斯符號學專題,課程大綱見頁69-71,期望對視覺符號範疇的認知問題做一歷史性的探討,本課程並配合貴會核准之三年計畫—符號學的生命基礎(NSC91-2411-H-002-033)。《跨媒體符號學芻議》計畫雖僅有一年,但仍能與之後的三年計畫銜接。承蒙貴會補助,未來三年之具體成果當可預卜。

四、計畫成果自評

跨媒體符號學顧名思義涉及各種學科之整合，尤其是認知科學、實驗心理學，以及哲學等學科之知識頗為重要。本人因所受訓練有限，難免有捉襟見肘之嘆，期望於接下來之三年計畫中，透過國際合作予以補強。

五、參考文獻

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Independent Study on Semiotics of the Arts
藝術符號學專題研究 時間：Tuesday, 2:00-5:00 PM.

This independent study will (1) examine the landmarks in art studies, elaborating how certain methods have been made possible in dealing with the geneses of art works and their impacts upon human visions and perceptions. (2) clarify the different categories of art works by drawing lessons from the analytic philosophy. (3) criticize the potentials and limitations of using the verbal to model the visual and how different cultural systems have made renovations.

				Semiotics of Art
Year	Month	Date	Day	Content
90	9	17	Mon.	本學期上課開始
	9	18	Tue.	Off
	9	25	Tue.	Introduction to the Semiotics of Art
	10	1	Mon.	中秋節(放假一天)
	10	2	Tue.	E. Gombrich: <i>Art and Illusion</i> (Introduction & Part I)
	10	9	Tue.	Break
	10	16	Tue.	<i>Art and Illusion</i> (Part II)
	10	23	Tue.	<i>Art and Illusion</i> (Part III)
	10	30	Tue.	<i>Art and Illusion</i> (Part IV)
	11	6	Tue.	Nelson Goodman: <i>The Language of Art</i>
	11	13	Tue.	Nelson Goodman: <i>The Language of Art</i>
	11	15	Thur	本校成立紀念日(停課一天)
	11	20	Tue.	Yuri Lotman et.al. "Theses of Cultural Semiotics"
	11	27	Tue.	Yuri Lotman et.al. "Theses of Cultural Semiotics"
	12	4	Tue.	Moscow-Tartu School; Yuri Lotman: <i>Soviet Semiotics</i>
	12	11	Tue.	Yuri Lotman: <i>Soviet Semiotics</i>
	12	18	Tue.	Lotman: <i>Universe of the Mind</i>
	12	25	Tue.	Lotman: <i>Universe of the Mind</i>
91	1	1	Tue.	開國紀念日(放假一天)
	1	8	Tue.	Lotman: <i>Universe of the Mind</i>
91	1	11	Fri.	本學期上課最後一天

行政院國家科學委員會補助國內專家學者國際學術合作交流報告

2002 年 3 月 20 日

報告人姓名	張漢良	服務機構及職稱	台灣大學外文系(所)教授
時間 地點	91 年 2 月 21 日至 3 月 3 日 愛沙尼亞塔爾吐大學	本會核定 補助文號	NSC90-2411-H-002-024
主題	跨媒體符號學芻議		

一、緣起

本人承國科會補助，執行國科會專題研究計畫在案，該計畫包括國際學術合作及出席國際會議等項目。由於本計畫之跨媒體研究需要從事田野工作，如參訪博物館及建築古蹟等，原行程含義大利及歐陸各國，最後目的地為愛沙尼亞塔爾吐大學。後因配合塔爾吐大學所舉辦之國際會議兼之本人任教之大學已開學，故行程照原定計畫縮短，並獲貴會同意在案。塔爾吐大學為符號學研究重鎮，其泛符號學為本計畫研究重點。本年二月二十八日適逢塔爾吐學派開山祖羅特曼(Yuri Lotman)八十年冥誕，本人藉此機會順道前往出席會議，並發表論文。

二、經過

愛沙尼亞地處波羅地海，行程安排不易，受限於需搭乘本國班機之規定，乃於二月二十一日深夜出發，於二十二日下午抵達羅馬。因芬蘭航空由羅馬飛赫爾辛基之班機翌日中午才有，故於羅馬停留二日。停留期間參訪凡蒂岡博物館。凡蒂岡博物館中的拉菲爾雅典學派在藝術史上佔有重要地位，對透視法之表現以及人物肖像畫(iconography)乃至文藝復興當時繪畫典律(canon)之形成皆有重要之影響。二十三日之參訪焦點在館中文藝復興時期的作品，並旁及壁畫(murals)對幻覺(illusions)形成之貢獻。

本人於二十四日中午搭乘芬航經赫爾辛基轉機至愛沙尼亞首府塔林，因時值夜間已無陸上交通工具，故於塔林住宿一晚。二十五日中午搭乘客運班車，前往塔爾吐，於午後到達，進駐校方所安排之 Draakon 旅社。羅特曼國際會議於二月二十六日至三月二日分別於塔爾吐以及塔林舉行，因簽證限制及國內授課需要，本人未能全程參與，實為憾事。本次會議參與學者來自二十餘國，以東歐學者為主。與會學者就文化認同與疆界課題以及俄國文學主題，分兩個場次同時進行。本人參與第一個主題，於二月二十八日發表論文，主題為"Is Language a Primary Modeling System?—On Jurij Lotman's Semiosphere"。案此次發表之論文泰半與羅特曼教授生前所研究之學術課題有關，學者討論之內容與論點頗有交集。為配合此次會議，主辦單位於二月二十八日當天舉行羅特曼著作展、頒發羅特曼獎學金，以及追思儀式。本人得以參與此盛會，頗為感動。

在此之前，本人與塔爾吐學派成員 Mihhail Lotman 及 Kalevi Kull 已經相識，並有信函往來，雙方同意進行學術合作計畫，並已報請貴會補助中【符號學的生命基礎——以塔爾吐學派為例(91WFA0100092)】，此次得以結識符號學系主任 Peter Torop 教授，相談甚歡，Torop 教授並邀請本人主編一期台灣符號學研究專號，此事正研議中。

三、感想

國內學術研究多年來限於北美地區為主，近年來逐向歐洲擴展，可喜可賀。然而，愛沙尼亞為符號學傳統研究中心，一九七〇年發起之莫斯科—塔爾吐學派(Moscow-Tartu School)以該校為根據地，該系之陣容堅強，出版重要期刊 Sign Systems Studies。可惜由於該國與本國未建立正式外交關係，雙方幾無合作可言。此次之遠行可算是破冰之旅，特此一記。

Is Language a Primary Modeling System?--On Jurj Lotman's Semiosphere
Professor Han-liang Chang
National Taiwan University
Paper presented at the International Conference on *Cultural Semiotics: Cultural Mechanisms, Boundaries, Identities*, in observance of Jurj Lotman's 80s Anniversary, University of Tartu
Tartu, Estonia, 26 February - 2 March 2002

The well-known distinction of primary modeling system versus secondary modeling system suggested by Lotman and others (Lotman 1977) is a lasting legacy of the Tartu School's that has been adhered to, modified, and refuted by semioticians of culture and nature (Sebeok 1991, 1994, Sebeok and Danesi 2000).¹ Adherence aside, modifications and refutations have focused on the issue whether or not language is a primary modeling system (hereinafter PMS) and, if not, what alternative can be made available to replace it. For both biosemiosis and anthroposemiosis, language can only be a secondary modeling system (hereinafter SMS) on top of the biological experience of *Umwelt*. As Sebeok and Danesi have recently observed:

[L]anguage is, by definition, a secondary cohesive modeling system providing humans with the resources for extending primary forms ad infinitum. From a biosemiotic perspective, the language code can be defined as the cohesive system providing the modeling resources for converting what von Uexküll (1909) called 'concrete living existence' into 'active plans' (2000: 108).

Here our co-authors are reiterating Sebeok's entrenched position over the decades. He had observed in 1989, "Solely in the genus *Homo* have verbal signs emerged. To put it in another way, only hominids possess two mutually sustaining repertoires of signs, the zoosemiotic nonverbal, plus, superimposed, the anthroposemiotic verbal." (1991: 55). According to Sebeok, what the Russo-Estonian semioticians call "primary," i.e., the anthroposemiotic verbal, is "phylogenetically as well as ontogenetically secondary to the nonverbal; and, therefore, what they call 'secondary' is actually a further, tertiary augmentation of the former." (Ibid.) In anthroposemiosis the triadic relationship is "developmental" (Sebeok and Danesi 2000: 10) and can be displayed as follows.

(1) Primary Modeling System (PMS) = the system that predisposes the human infant to engage in sense-based forms of modeling.

¹ It would be inaccurate to attribute this distinction to Lotman. Sebeok identifies A. A. Zaliznjak, V. V. Ivanov, and V. N. Toporov (1962) as the original users of the terms in their joint paper for the Moscow-based Academy of Sciences (1991: 49). See A. A. Zaliznjak et al, 1977. It must be noted, however, that our co-authors do not explicitly make the PMS and SMS distinction; instead, they suggest the gradational and hierarchical relationships among strata, for example, a situation in which natural language mediates between the most abstract mathematical model and the least abstract but most connotated religious model (Ibid., 47).

- (2) Secondary Modeling System (SMS) = the system that subsequently impels the child to engage in extensional and indexical forms of modeling.
- (3) Tertiary Modeling System (TMS) = the system that allows the maturing child to engage in highly abstract (symbol-based) forms of modeling. (Ibid.)

In this more refined configuration, language as symbolic system is reduced (or elevated) to the still higher tertiary layer. This accepted, a cultural system with maximal modeling capacity like religion would be none other than a quaternary model (Zaliznjak, Ivanov, and Toporov, 1977 [1962]), still further removed from the biological foundation. Sebeok's argument against the Russo-Estonian semioticians can stand insofar as language is secondary to human sensory system, the appropriateness of the Peircian terms being another question.² However, insofar as that sensory system or any other biological system is articulated and described in language, its a priority and transparency would be compromised and undermined. This is especially true to semiotics of culture, which is a major contribution of the Tartu School's.

Given the fact that language, as Emile Benveniste (1969 [Eng. 1980]) asserts, is the only semiotic system that can be at once both an interpreting and interpreted system, the primacy granted to object-language is replaced by the dialectic between object-language and meta-language.³ This had already been observed by the joint authors of the "Theses," manifesto of the Tartu-Moscow School (van der Eng and Grygar 1973):

The choice of a discrete metalanguage of distinctive features of the types upper-lower, left-right, dark-light, black-white, to describe such continuous texts as those of paintings or the cinema, may itself be regarded as a manifestation of archaizing tendencies which impose on the continuous text of the object-language metalinguistic categories more characteristic of archaic systems of binary symbolic classification (of mythological and ritual types). But we must not rule out the fact that features of this kind remain as archetypal features even during the creation and perception of continuous texts (64).

² The triadic structure suggests Peirce. However, a number of questions can be raised. (1) Whilst the development from Firstness to Secondness and Thirdness is acceptable, only two rather than three types of sign are at work here, namely, the indexical and the symbolic. One wonders if the iconic does not have a role to play, especially with reference to the sign of sphere. (2) As far as the human sensory system is concerned, the fundamental and dominant sign that cuts across the three realms is the indexical. (3) In Peirce the triadic relationship of representamen, object, and interpretant is irreducible.

³ Lotman and Uspensky allude to Benveniste 1980 to support their argument for the PMS versus SMS distinction (1978: 212). Whilst they agree with Benveniste on natural languages' metalingual capacity, they believe that, in actual historical functioning, "languages are inseparable from culture." To be sure, the distinction is only heuristic and by no means precludes inter-level or inter-systemic transcoding.

The dating of this manifesto is important because only a couple of years earlier were Lotman and Uspensky (1971 [Eng.1978]) seen to criticize Benveniste's unqualified privileging language. Their criticism shows, from the perspective of linguistics or semiotics of language, a seemingly contradictory position which can be explained only by looking at Lotman historically, i.e., in terms of historicity. Since this is a key passage, it is worth quoting in length.

A key question is the relationship of culture to natural language. In the preceding publications of Tartu University (the semiotic series), cultural phenomena were defined as secondary modeling systems, a term which indicated their derivational nature in relation to natural language. Many studies, following the Sapir-Whorf hypothesis, emphasized, and examined the influence of language on various manifestations of human culture. Recently [i.e., 1969] Benveniste has emphasized that only natural languages can fulfill a metalinguistic role and that, by virtue of this, they hold a distinct place in the system of human communication. *More questionable, however, is the author's proposal in the same article to consider only natural languages as strictly semiotic systems, defining all other cultural models as semantic, that is, not possessing their own systematic semiosis but borrowing it from the sphere of natural languages.* Even though it is valuable to contrast primary and secondary modeling systems (without such a contrast it is impossible to single out the distinguishing characteristics of each), it would be appropriate to stress here that in their actual historical functioning, languages are inseparable from culture. No language (in the full sense of the word) can exist unless it is steeped in the context of culture; and no culture can exist which does not have, as its center, the structure of natural language (212; Emphasis mine).

Several points in this passage merit our notice, and most of which recur here and there, some more developed than others, throughout Lotman's writings. Particularly relevant to this paper is the word *sphere* which I shall dwell on later. The emphasized passage is quite puzzling. For now, one should examine closely the authors' position regarding language. First of all, the authors agree with Benveniste that only language can be in itself both object-language and meta-language. This, however, should not be construed to mean that language is the only meta-semiotics, mathematics and logic being two other notable examples. As meta-language, language serves to model, describe, explain, and by so doing, impose its linguistic features, such as binarism, on the object it studies. *As homo loquens*, we verbalize other semiotic systems, in the same way that we, as *homo symbolicum*, configurate such systems in mathematics and symbolic logic. By virtue of its double articulation, language is capable of mapping culture, i.e., articulating cultural phenomena as secondary modeling systems, as aptly demonstrated by Zaliznjak et al

(1977) on religion. The authors of the "Theses" actually lend their support to Benveniste when they assert that culture is "a system of systems based in the final analysis on a natural language (this is implied in the term 'secondary modeling systems', which are contrasted with the 'primary system', that is to say, the natural language)" (1975: 76); and that "the analysis of Slavic cultures and languages may prove a convenient model for investigating the interrelations between natural languages and secondary (superlinguistic) semiotic modeling systems" (Ibid, 78).

To return to their criticism of Benveniste, one may observe that the afore-said structural function of language as system by no means precludes the PMS's being affected in reverse order by the SMS, nor for that matter, language's being historicized. However, our defense of Benveniste may run the risk of missing the point of Lotman's attempt, albeit in its embryonic form, to propose an alternative model. The possibility of a pre-verbal or non-verbal modeling system suggested by Lotman is the semiosphere. What is significant about this model is its holistic approach as a remedy to the linguistic model's atomism. While early linguistics-based semiotics "moves from simple and clearly defined atomic elements to gradually more complicated elements," the semiosphere is "a semiotic continuum filled with semiotic structures of different types and with different levels of organization" (1989: 42-3 [Russian 1984]). The semiosphere is arguably Lotman's major contribution in his later years. Presumably proposed in 1984, this latter conceptual category, even in Sebeok and Danesi's words, is so "pliable" and "adaptive" (2000, 106) that one may wonder why it does not have the potential of serving as a PMS if the hierarchical order of "bottom-up" can be reversed to "top-down" (Alexandrov, 2000: 343).

Two questions can be raised regarding semiosphere's semiotic functions: first, "Whether the semiosphere and language as modeling systems (PMS) are compatible?" second, "How does the semiosphere function heuristically?" Regarding the first question, one recalls that Lotman has defined the semiosphere as "the semiotic space necessary for the existence and functioning of languages, not the sum total of different languages"; and in a sense it "has a prior existence and is in constant interaction with languages . . . Outside the semiosphere there can be neither communication, nor language" (2001: 123-4).

I shall return to the relationship between semiosphere and language towards the latter part of the paper. I raised the first question in an e-mail correspondence with

Professor Mihhail Lotman. In his good reply dated 11th December 2001, Professor Mihhail Lotman comments, "In my opinion, the concept of semiosphere is not in conflict with a language as primary-modelling system, if we approach language as well in so-to-say holistic perspective[;] contradiction evolves only if we treat semiosphere in holistic way, but language in atomistic way." (M. Lotman, 2001b).⁴ One may certainly look at language holistically, but one does not analyze it that way. This leads to the next question: How can the holistic model of semiosphere be cognitive and operational? This question is not only a fundamental one of semiosis but also one of hermeneutic circle involving the dialectic relationship between part and whole.⁵

Since the early stage of Tartu School, Lotman's writings have been highlighted by his favourite word of sphere--I say word rather than concept because this single word may stand for a whole spectrum of concepts. The word had recurred throughout his writings, until the writer coined the term *semiosphere* in 1984. It seems appropriate now to examine the very concept of sphere as a semiotic entity, because we are confronted with the complex semiotic problem of a single signifier closing on a dozen of signifieds as well as the semantic problem of a word pointing to a large number of referents and references. The word is so frequently used by Lotman that its semantic precision is often blurred. In fact, it was already used as early as in the "Theses" and used together with the concept of language as PMS though their relationship was then not articulated. But even there in the "Theses," the word *sphere* seems to be dominating. I have prepared a provisional list enumerating its various uses in English translation. These twenty-six examples may only justify the English alphabet but semantically betray Lotman's original Russian phrasing. Randomly arranged, not according to the chronological order, nor showing necessary evolution, they are grouped into eleven semantic areas.

(1) As space

⁴ Apparently, in the time-honoured conflict between reductionists and antireductionists, Lotman aligns himself with the antireductionists in the belief that the whole is predominant rather than the part (cf. Prigogine and Stengers, 1984: 173). Lotman once criticises the analytical tradition initiated by Descartes to the effect that "for this procedure [i.e., "isolating an object and then making it into a general model"] to be a correct one, the isolated fact must be able to model all the qualities of the phenomenon on to which the conclusions are being extrapolated." (2001: 123)

⁵ Alexandrov points out that in his earlier writings "Lotman's methodology entailed a systematic and hierarchical accumulation of data ranging from sound repetitions to broad ideological formulations and never dissolved an individual work's sui generis patterns of meaning in larger considerations such as ideology, genre, or period." (2000: 343).

- (a) "From this point of view [the functional correlation of different sign systems] particular importance is attached to questions of the hierarchical structure of the languages of culture, of the distribution of spheres among them, of cases in which these spheres intersect or merely border upon each other." (1975: 57)
- (b) "[C]ulture will have the appearance of a certain delimited sphere." (Ibid.)
- (c) "the sphere of organization (information) in human society" (Ibid, 58)
- (d) "the sphere of cultural organization" (Ibid.)
- (e) "the sphere of extracultural nonorganization" (Ibid.)
- (f) "culture and non-culture appear as spheres" (ibid.)
- (g) "the spheres of the unconscious" (Ibid., 59)
- (h) "the tension between the corresponding cultural spheres" (Ibid., 61)
- (i) "mutual breaches of the cultural sphere into chaos and of chaos into the cultural sphere" (Ibid.)
- (j) "Different spheres of culture have inherent in them a different extent of internal organization." (Ibid., 82)
- (k) "Culture . . . forms . . . a marked-off sphere." (1978: 211)
- (l) "[T]he space of the semiosphere is abstract in nature." (1989: 43)
- (m) "It is a specific sphere, with the same attributes that are ascribed to a closed sphere." (Ibid.)
- (2) As system [of signs]
 - (n) [By inference], "culture appears as a system of signs." (1978: 211)
 - (o) "the sphere of natural languages" (Ibid., 212)
 - (p) "'a semiosphere' can be defined as 'the semiotic space necessary for the existence and functioning of languages.'" (2001: 123)
- (3) As geographical place
 - (q) "The function of myth . . . is . . . to establish identity between different spheres." (2001: 152)
 - (r) "When the semiosphere involves real territorial features as well, the boundary is spatial in the literal sense." (Ibid., 140)
- (4) As collection of texts
 - (s) "If we take the central and peripheral spheres of culture to be texts organized in a particular way, then we shall notice that these texts have different types of internal organization." (Ibid., 162)

- (5) As academic discipline
 - (t) "The dispute between the causal-predetermined and the probability theories in theoretical physics of this century is an example of the conflict we have been discussing in the sphere of science." (Ibid, 163)
- (6) As conceptual category
 - (u) "So if dialogism is the penetration of the diversity of life into the ordered sphere of theory, at the same time mythologism penetrates into the sphere of the extraordinary." (Ibid., 167)
- (7) As genre
 - (v) "the sphere of the detective story" (Ibid., 164)
- (8) As geometrical figure
 - (w) "In the light of Pythagorean ideas about the perfection of the circle and the sphere among geometrical figures and bodies, we can explain the circular construction of Hell as follows: the circle is the image of perfection." (Ibid., 181)
- (9) As celestial body [in Dante]
 - (x) "[A]fter the boundary the poet ascends the mountain of Purgatory and is carried up through the heavenly spheres." (Qtd from Pavel Florensky, Ibid., 178)
- (10) As Hell [in Dante]
 - (y) "[F]or it is not the centre of the sphere but the top of the Axis that is his [Dante's] point of spatial and ethico-religious orientation." (Ibid., 182)
- (11) As cerebral division, i.e., hemisphere
 - (z) "To our surprise, observations about the bipolar asymmetry of semiotic mechanisms has been paralleled by research into the functional asymmetry of the large hemispheres of the brain." (2001: 2-3)

The list is not exhaustive, but it is enough to reveal the semantic flexibility of the concept. The first thing one notices is that all the eleven classes listed are conceptual categories, and for that matter, super-ordinate categories rather than basic-level categories that need the mediation of bodily experiences (Lakoff and Johnson, 1999: 26-7). The next thing worth noticing is that as "spatial-relations concepts" (Ibid, 30), they cannot be perceived, but are rather conceptualized by our projection of complex imagistic structure. The only invariable element that helps to construct such structure is perhaps the simple circle which is but an image-schema, the so-called "container schema," with the attributes of inside, outside, and boundary

(Ibid, 31-2).⁶ But does this container schema, this iconic sign have such an extensive semantic power? The answer may be negative unless, with Peirce and his devout followers, iconicity can be granted a preliminary function in the holistic web of semiosis (Merrell, 1991: 248, Spinks, 1991: 444). [ADD one paragraph discussing the concepts of depletion and shift (Even-Zohar 1990), de-semanticisation and pragmaticisation of the word “sphere” (lexical semantics to syntactic semantics (formators) and/or to pragmatics. Cf. Weinreich, Labov & Herzog, 1968)]

Lotman's sources of the term sphere are quite heterogeneous. One is reminded of the word used by the Formalists. Vladimir Propp (1928), for one, proposes seven "sphere" of action, which can accommodate the thirty-one functions of the kernel Russian fairy tale. Lotman occasionally uses sphere in this Proppian sense, e.g., "[A] plot-space is divided by one boundary into an internal and an external sphere, and one character has the plot-possibility of crossing that boundary." (2001: 157) A more interesting case is provided by Tynianov and Jakobson in their famous 1928 essay, "Problems in the Study of Language and Literature" (DeGeorges eds. 1972: 82): "Just as the idea of a mechanical agglomeration of phenomena was replaced by the idea of system or structure in *the sphere of synchronic science*, it was similarly replaced in *the sphere of diachronic science*." (82. My emphasis.) The usage is interesting because it not only reduplicates the spatial dimension of synchrony, but also encodes diachrony in space, as in common English parlance, "in the space of [a period of] time." I am not sure if anybody has paid any attention to the significance of this trope, but I do believe it has a lot to say about the force and limits of Lotman's use.

As is well-known now, Lotman has derived his semiosphere from Vladimir Ivanovich Vernadsky's (1863-1945) biosphere and noosphere (1998, 1999), and their rapport has received much critical attention recently (Kull, 1998, 1999, 2002, Mandelker 1994, 1995, Mikulinsky, 1984, Samson and Pitt, 1999, Alexandrov 2000, Levit et alii, 2000, M. Lotman 2001). Not a biologist by training, I have benefited from these studies, and in particular, am personally indebted to Professor Kull for his correspondence regarding the Lotman-Vernadsky links and the research he has done.

⁶ Strikingly, the two schemata identified by Lakoff and Johnson (1999: 31-4), namely, container schema logic and source-path-goal schema, are exactly the two models used by Lotman, viz. sphere and communication. These two schemata are iconic (○; →) in appearance, but function as indices. Therefore, the primacy of iconicity can be undermined.

From the perspective of influence study, the possible rapports between Vernadsky and Lotman and between Jakob von Uexküll and Lotman would be worthy topics for further enquiry. Let it suffice to make the following brief comment.

As a closed geometrical figure or form, whether regular or irregular, symmetrical or asymmetrical, the sphere is a semiotic construct. Because of the long tradition of usage where it iconically stands for celestial bodies, including the Earth, and the popular references to the components of geosphere, viz. lithosphere, hydrosphere, and atmosphere, one tends to take what it stands for as empirical facts, and confuse genesis with metagenesis (Koch, 1991: 214), or, in Popper's words, world-1 with world-3 knowledge.⁷ Such is the case of biosphere. Lotman comments on Vernadsky's terms,

We should caution against confusing the term noosphere, introduced by V.I. Vernadskii, with the concept of semiosphere, which is our contribution. The noosphere is a specific stage in the development of the biosphere, a stage associated with the rational activity of man . . . The noosphere is formed when human reason acquires a dominant role in this process. Whereas the noosphere has a material and spatial existence that embraces part of our planet, the space of the semiosphere is abstract in nature. However, this by no means implies that the concept of space is used here in a metaphorical sense. It is a specific sphere, with the same attributes that are ascribed to a closed space (1989: 43).

Let us put aside Lotman's rather arbitrary assertion that the noosphere is material and the semiosphere abstract (but "specific" [Sic!]) as well as his curious argument that no metaphor is being used for his concept of space -- our list above proves the contrary. The point is that not only is the noosphere a semiotic construct, like the semiosphere, but also is the biosphere or geosphere a construct. The only difference is that one tends to verify or falsify the other empirically *a priori* spheres by scientific observations and experiments, whereas one may not verify or falsify noosphere and semiosphere with the same methods. In fact, from our point of view, both noosphere and semiosphere take semiotics to construct and thus contribute to the so-called world-3 knowledge.

Before moving to the next topic of semiosphere as model, let me conclude this discussion by quoting Mihhail Lotman's well-balanced observation which he made in

⁷ According to Koch, there is a "mirror-like difference" between genetic and metagenetic evolution. While genesis proceeds "from the general primum (e.g. atom) to a genetical secundum (e.g. molecule)," metagenesis "proceeds, in its process of the neural reflection of the outward world, from what is, in the eyes of overall evolution and genesis, posterior (e.g. the human body) to what is prior (e.g. geographical landscape, mountains)." (1991: 214).

Taiwan last year:

The relationship between semiosphere and biosphere is the relationship between two possible worlds. They exist, so to say, in parallel: while biosphere is formed in accordance with laws of science (physics, biology, etc.), which is the realm of time and causality,[the] semiosphere is formed by means of semiotic mechanisms (2001: 100).

With the problematic of the two kinds of sphere's parallelism or convergence bracketed, I would return to the topic of language, which, I believe, constitutes what Mihhail Lotman means by "semiotic mechanisms."

We could agree with Lotman that the sphere, as micro-structure, is an icon (What else can it be?) and when temporalized, that is, from the macro-structural perspective, the dynamic, evolutionary semiosphere, together with the biosphere and noosphere, may be conceptualized, i.e., via the secondary indexisation and tertiary symbolisation, as an iconic continuum. In its most abstract form, i.e., as the micro-structure circle, the sphere no doubt conforms to what Sebeok and Danesi mean by model: "[A] form that has been imagined or made externally (through some physical medium) to stand for an object, event, feeling, etc., known as a referent, or for a class of similar (or related) objects, events, feelings, etc., known as referential domain." (2000: 2) This iconic sign may indeed in some aspect stand for something to someone. But when the icon is taken too literally, i.e., resembling a circle, and its iconicity too metaphorically, i.e., any kind of delimited space, so that it can be generalized as a master-sign that claims to embrace and subsume all the cultural and natural phenomena, then it loses its function and attraction as a model and fails to serve as a discovery procedure. This may have been what has happened to some generalizations of Peircian universe of the mind. Now among the items listed above, it is dubious if they can be grouped as referential domain precisely because the expression seems to be capable of content (i.e., reference) free.⁸ Whereas a Peircian would regard every thought-sign iconic and therefore the human mind an infinite semiosis of iconicity, that is, "a continuous extension in space" (Peirce, CP 6.277); others have cautioned against using extending space as a semiotic model. Greimas and Courtés, for one, have this to say: "When all the different metaphorical

⁸ Much has been discussed about iconicity as modeling. In addition to diagrams, maps, metaphors, and images, almost every instance of representation of human thinking is iconic in its firstness. See, for example, Spinks, 1991. From the perspective of semantics, the content-free sign would qualify as an empty signal form (Karlsgren, 1963).

uses of this word [space] are added together, one can see that the use of the term space requires great prudence on the semiotician's part" (1982: 305).

We recall that Lotman has designated the semiosphere as a pre-requisite to language, a prior space only on which can language communication be enacted. From the perspective of mereology, the universe of semiosphere is indeed larger than that of language. However, qua model, the semiosphere is inevitably confronted with a dilemma: On the one hand, it has to be a "minimalist" abstraction (Merrell, 1998: 153), the condition of which may be fulfilled by the iconic sphere; on the other, it should function to "constitute an entire system dictating semantic rules" and to provide "both descriptive and explanatory adequacy for a successful theory" (Merrell, 1991: 257).⁹ How does one get across this dilemma, or in Mihhail Lotman's phrase, the paradoxes of semiosphere (2001)?

Following Mihhail Lotman, one could suggest that the semiosphere is a holistic world model, in Koch's words, one of metagenesis, in connection with which semiotics serves a metadiscipline (Koch, 1991). By proposing this alternative we can hope to solve the afore-mentioned problem of semantic imprecision and semiotic border-crossings. When one assumes this holistic perspective (if possible at all!), inter-systemic intricacies and mechanisms of system mutations often retreat or even vanish from the horizon of perception.

As our preliminary list of the dozen categories (semantic areas) suggests, the semiosphere as world model provides ample space for the practice and interaction of multiple semiotic systems. However these categories can be grouped in different orders, whether as genre, collection of texts, or academic discipline, they belong to the discursive structure within the framework of subject and object relation, that is, the human subject's appellation and/or interpretation of supposedly extra-linguistic referents or contexts. In other words, linguistic semiosis (signification and communication) is always already there. Whereas natural languages are capable of making abstract semantic categories explicit -- this is also seen in "the sphere of the

⁹ Floyd Merrell, in commenting on Ernest H. Hutten's concept of model, has this to say: A model specifies the meaning of an entire theoretical corpus. It prescribes a context and provides a universe of discourse, setting the very limits to what can and cannot be said, thus establishing a theory's content and the logical range of the propositions. Moreover, a model, in addition to its metaphorical character, is not limited to a single expression, or even to a series of expressions. It constitutes an entire system dictating semantic rules for future propositions. The system, so to speak, provides for both descriptive and explanatory adequacy for a successful theory. In short, a model functions as if it were an exceedingly complex and systematic metaphor, or, in a manner of speaking, an allegory (1991: 257).

detective story," some of the semiotic systems identified by Lotman, such as the sphere of the "extraordinary," are noted only for their semantic implicitness.

One final word should be said about the use of semiosphere from the cross-cultural perspective. Among the cultural mechanisms which Lotman and his colleagues have identified (M. Lotman 2001), dialogue and translation figure prominently. With Lotman, dialogue as well as translation, in their continued process of emission and transmission of energy, can be enacted not only between historical periods of one culture, but also between inter-cultural and cross-cultural systems. A profound semiotician and cultural historian, Lotman will continue to shed light on our discipline of comparative culture with his insight into the possibility of intercultural dialogue. With this high tribute I beg to conclude my paper.

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行政院國家科學委員會補助國內專家學者國際學術合作交流報告

2002 年 7 月 26 日

報告人姓名	簡瑞碧	服務機構 及職稱	台灣大學外文所博士班研究生
會議 時間 地點	91 年 2 月 26 日至 3 月 1 日 愛沙尼亞塔爾吐大學	本會核定 補助文號	NSC90-2411-H-002-024
會議名稱	中文：紀念羅特曼八十冥誕國際研討會—文化符號學：文化機轉、疆界、認同 英文：Cultural Semiotics: Cultural Mechanisms, Boundaries, Identities International Conference Dedicated to Juri Lotman's 80th Anniversary		
發表 論文題目	中文：視覺藝術的初度規模系統—圖式論 英文：Schemata as the Primary Modeling System of Visual Arts		

一、緣起

貢布里希(Ernst E. Gombrich)於第二千禧年版的《藝術與幻覺》(*Art and Illusion*)序言中，提及以符號觀點來重新閱讀並定義所謂的「幻覺」。一般人可能會將此幻覺視為虛幻，但是所謂的幻覺是多種人類多重視覺局限的集合，除了眼部的生理局限之外，幻覺的來源也與畫家或觀者的文化環境有關。貢布里希這本論著主要的論點在於「畫家們畫不出他們所沒看過的東西，而觀者則是根據其所看過的東西來理解一幅畫」，觀者所看過以及學習過的事物也正是他所謂由文化與視覺經驗所組構而成的心理模態(mental set)或是圖式(schema)。但是，貢布里希卻經常混淆圖式與圖像(image)的關係。適值 2002 年二月舉行紀念文化符號學家羅特曼(Juri Lotman)八十冥誕國際研討會，而貢布里希則於 2001 年十一月三日謝世，此等巧合亦催使我將兩人的理論接合在一起討論。這份報告將繞道至羅特曼所發展的規模系統(modeling systems)理論，試圖以語言溝通模式(communication models)以及規模系統理論來重新理解「圖示」、「圖像」，以及「文化」在視覺藝術系統中位居何種層級。

二、參加會議經過

本人於二月二十七日發表論文，由俄國聖彼德堡大學演化生理與生化研究中心 Tatiana Chernigovskaya 教授擔任主持人，發表過後隨即有義大利席也那(Siena)大學溝通科學系 Massimo Leone 博士發問動物是否像人類一樣對圖式產生反應？而我所談的圖式是否僅能應用在現代社會中的簡易圖形？關於第一個問題，我的回應是肯定的，因為生命符號學(biosemitotics)正是要找出動物如何規範並內化其所生存的環境。針對第二個問題，我則提醒 Leone 博士，雖然是一個看似簡單的圖式，仍可以符號學觀點分為 expression 與 content，所以並非是應用範圍是否廣泛的問題，而是圖式如何在不同的領域的機轉中產生意義的問題。接著，指導教授張漢良則提問主持人，既然自 1980 年代之後，左右半腦功能的區分已逐漸失去意義，她是如何看待羅特曼方法論中仍區分左右半腦的論點。關於這個問題，Chernigovskaya 教授並無法回答，顯見不願意挑戰羅特曼的思想體系。討論過後，來自德國 Lüneburg 大學的 Elize Bisanz 博士則私下向我表達激賞之意，並與我交換另一哲學學者 Nelson Goodman 與羅特曼於同時期產生對語言與藝術主從關係的不同論著，Goodman 所寫的是 *Languages of Art* (1976)，而羅特曼則論述 *Art as Language* (in *The Structure of the Artistic Text*, Eng. Trans., 1977)。翌日，於塔爾吐大學圖書館參觀羅特曼手稿書籍特展之際，俄國聖彼德堡大學哲學系 Leonid Tchertov 博士，則向我致贈其已發表之論文數篇，發現兩人於此次會議中所發表的論文極為類似，皆指向以空間與圖式所發展的符號學，兩人相談甚歡。值得一提的是，羅特曼的兒子 Grigori Lotman 為畫家，於論文發表人展演之際，他為數位發表人描繪肖像，亦向我展示我的肖像，表達親善之意。羅特曼的長子為文史哲學家，次子為生物學家，家族學術事業充份洋溢孺慕與赤子之情。

三、與會心得、感想

1. 本人碩士階段的論文即以畫家馬格利特的圖像為主，觀察傅柯如何以其為論述對象，發展語言與哲學之間的對話，形成以 énoncé 與 énonciation 為區分的法式語言符號理論。此次接觸圖式，發現所要具備的知識不僅止於語言學，更需要觀察人類的生理、認知，以及感知系統，才能再深入以跨科學/學科的方式討論圖式在文化、藝術創作與理解機轉中的地位。例如，圖式在文化中既可以是某種內建於人腦的模態，但也可以是在學習過後得知的樣態，如何能在不區分左右半腦的條件下，對人類的藝術創造活動提出新的見解？
2. 以跨科學/學科的方式討論圖式目前在歐洲已成為研討會的熱門議題，丹麥哥本哈根大學比較文學系的 Frederik Stjernfelt 教授即主辦過此類會議，邀請各個學門的專家

針對圖式發表研究成果：

http://www.arthist.lu.se/kultsem/assoc/NASS_6thConference_Home.html，Stjernfelt 教授亦是皮爾斯(Charles S. Peirce)專家，未來擬定以兼具多重學科背景的皮爾斯為起點，再深入觀察圖式這個議題。

3. 塔爾吐符號學派以俄國語意學 Russian philology 起家，鮮少教導學生索緒爾、哥本哈根，以及比利時等語言學傳統，此當可視為此學派的空缺。不過，目前的學系主任 Peter Torop 教授意識到傳統方法的侷限，欲走出新的局面，而在新興符號學期刊 *European Journal for Semiotic Studies* 中發表 "New Tartu Semiotics"，此期刊亦是如 Tchertov 等學有專精之教授發表最新研究成果的園地，塔爾吐學派透過此等與全歐學者交流的機會，逐漸拓展其影響力。

四、考察參觀活動：

二月二十八日為羅特曼冥誕，參觀位於大學圖書館中的手稿書籍特展、羅特曼獎學金頒獎典禮，以及校區附近祭祠羅特曼的儀式。眾學者在雪花紛飛中向羅特曼的靈寢致敬。

五、攜回資料名稱及內容：

見以下附件二~五

【附件一】發表之論文

Schemata as the Primary Modeling System of Visual Arts

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27th February, 2002

Since the coming of the digital age, literary scholars have made efforts to study the similarities and diversities among linguistic, poetic, and scientific modes. Cybernetics, information theory, mathematics, and thermodynamics definitely contributed to a new stage of Soviet semiotics in the 1950s and 60s and enabled the Moscow-Tartu school to launch a panoramic survey on language and culture.¹⁰ Specifically, Yuri Lotman in the 1960s and 70s intensively led seminars and collaborated with his colleagues in formulating holistic models, general but abstract enough to explain the spectrums of culture. At the intersection of diverse disciplines, Yuri Lotman problematizes Roman Jakobson's 'communication scheme,' which serves as a foundation for him to distinguish the poetic language (internal communication) from the natural language (external communication), to define the idea of modeling, and to come to an advanced view on the correlations between dialogues and the expansion of cultural spheres.¹¹ In addition, the trends of science

¹⁰ Ann Shukman. "Soviet Semiotics and Literary Criticism." *New Literary History* 4: 2 (Winter 1978): 189-197. Vyach Vs. Ivanov. "The Science of Semiotics." *New Literary History* 4: 2 (Winter 1978): 199-203.

¹¹ Lotman talks about this in his early thesis and systematize this point in *Universe of the Mind*.

not only induce the surveys on language and culture but also give rise to a new way of understanding pictorial representations. From the 1950s to the 1970s, Ernst Gombrich gave series of lectures, trying to advocate a pan-psychology of paintings and diagrams. Gombrich's efforts overlap with Lotman's in the way that they both underline communication in their theoretical reasoning. Although Gombrich does not name Jakobson in his lectures,¹² he uses terms like 'cryptogram' and 'conundrum' to generalize the way in which the viewer receives the message from the artist. More often than not, he uses the "beholder's share" and the "painter's commerce" to measure the degree of the viewer's participation in and the successfulness of the artist's creative output. Arguing against the stereotypic definition of art as either resemblance with or similitude of nature,¹³ Gombrich illustrates art as several conditions of illusion. He reinstates the gaps between the artist and the viewer, the real and the imaginary, what we have learned and what we see, schema and culture, the finite and the infinite, the rough and the neat, empiricism and idealism, etc. These gaps not only define different types of art in history but also demonstrate, like what Lotman does, the uneven dynamics or tensions among the six elements listed in Jakobson's scheme. Embedded simultaneously against the background of a hypertrophy of scientific and linguistic information, Lotman and Gombrich conjunct on Jakobson's scheme but achieve different results respectively in the semiotics of culture and pictorial representation. Therefore, this paper is to examine the interpretations of Jakobson's scheme in the universes of Lotman and Gombrich, and, at the same time, to bring out the paradox of non-verbal communication in culture.

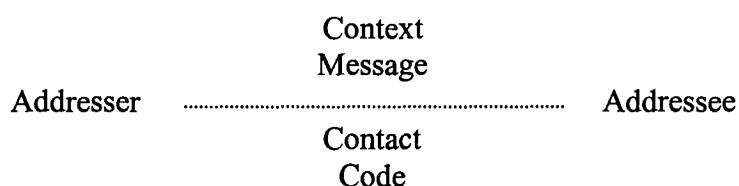


Figure 1. Jakobson's scheme of communication (Jakobson 1960: 353).

The scheme can be visualized as one of Jakobson's typical in illustrating the linguistic and poetic phenomenon as constituted by a syntagm (contiguity) and a paradigm (juxtaposition). Horizontally, the energy (or source of information) is

¹² Gombrich acknowledges his conversation with Roman Jakobson in the 1950s in his preface to *Art and Illusion* (1984: X).

¹³ "The Limits of Likeness" in Part One of *Art and Illusion*.

supposed to fluctuate from the left to the right, from the addresser to the addressee. Vertically, following the sequence given by Jakobson himself, the message takes the poetic function, the context the referential, the code the meta-lingual, and the contact the phatic. According to the linear, mathematical, and informational model, the message is the main concern. Scientists controlled the income of noise and some of Jakobson's contemporary linguists reduced the variable of emotions in order to make the reception of message as ideal and well-conditioned as possible (Jakobson 1960: 353). However, Jakobson fights against this linear and mechanic method, which not only deletes the emotive potential of the message but also takes the addressee as a passive end in a process of communication. Jakobson believes that the emotive potential of the message, which goes back to the addresser, should not be ignored in a culture, though there have been "programmatic, planning, normative endeavors" in any verbal culture.¹⁴ Regarding the emotive potential, which is like a crossroad for Jakobson and Lotman to converge and diverge, it seems Lotman in the 1970s answered the questions posed by Jakobson in his "Closing Statement": "What makes a verbal message a work of art?" (Jakobson 1960: 350) "What is the empirical linguistic criterion of the poetic function? In particular, what is the indispensable feature inherent in any piece of poetry?" (358). In answer to these questions, Lotman illustrates another linear scheme and differentiates the nuances between poetic language and daily language:

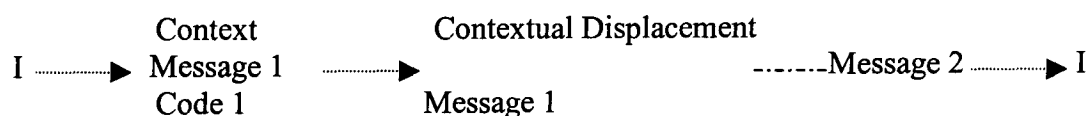


Figure 2. Lotman's scheme of internal communication (Lucid 1977: 101).

External communication is constructed on the following scheme: given a code, a text is introduced that is encoded in the code's system, transmitted, and decoded. Ideally, the text coincides at entrance and exit; in practice, a decrease in information occurs. In this scheme, the code constitutes the constant, and the text is the variable. Internal communication is constructed on the following scheme: given a text that is encoded in a certain system, another code is introduced and the text is transformed. The code constitutes the variable, and the texts differ at entrance and exit; an increase in information occurs in the text due to its interaction with the new code (Lucid 1977: 99-100).

¹⁴ He offers the example of a Russian actor, trying to formulate diverse situations in expressing 'this evening' (Jakobson 1960: 354-55).

The Moscow-Tartu school treats message as a text and Lotman in the above quotation is aware of both the controlled and the dynamic models. Lotman measures the emotive potential of the poetic text as the supplementation and displacement of codes, and this transformation (visualized in Figure 2) obviously increases the amount of informational flow in communication (compare message 1 and message 2 in Figure 2). The ideal and controlled model allows the least variables; the code is taken as a set of shared rules of encoding and decoding, supporting the coming in and going out of message. In the mathematical or computerized environments, variables may lead to the breakdown of a system. However, Lotman's idea of the code as the variable creates a dynamic and adaptive model of communication; the code has a meaning-generating potential in its own right, may change and restructure the model of communication. The problem is that Lotman here only highlights the code as the variable on the addresser's end possibly because his target in mind is the poetic function of language. There are occasions that the variable codes also exist in the addressees and manifest themselves as a series of counteraction (both pleasant and unpleasant) to the addresser's message.¹⁵ Therefore, even though Lotman discards Jakobson's scheme because of its ideal and mechanic undertones, we can still keep Figure 1 open for the possible dynamic and adaptive interpretations from the addressee's perspective.

From Jakobson's and Lotman's dissatisfactions with the ideal concept of communication, we have been reminded the difficulty to measure the models of communication. In his essay on communication-modeling systems, Lotman illustrates another linear scheme but reasons with the idea of cultural cycle:

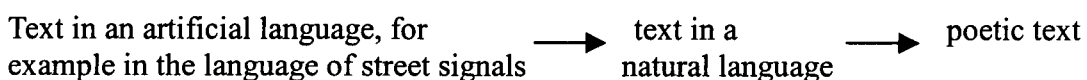


Figure 3. Lotman's scheme of communication-modeling systems (Lucid 1977: 97).

In this spectrum of communication systems, Lotman broadens the previous idea of communication scheme into a system so that he can consider each system's development in cultural evolutions.¹⁶ In terms of cultural evolution, the variables

¹⁵ I think Gombrich's study is to supplement this much-ignored end. Gombrich actually talks about the viewers' psychology.

¹⁶ When Lotman summarizes his theses of the functioning of the primary and secondary modeling systems (from point 1 to 3) in the target essay, he does not limit himself to the linguistic system. Basically, he defines systems in terms of hypertrophy, entropy, and the transmission of information. Lotman has emphasized communication as an act, which goes through a process of hypertrophy and

come from the complexities of character both in the addresser and the addressee, which are both a cause and a result of their increasing freedom to use and combine codes. Therefore, texts are becoming specialized and individual; the more esoteric the text is when it is encoded, the more rules or artificial languages are generated to aid decoding and intelligibility. Although the three systems are arranged in a sequence based on the easiness of understanding each other between the addresser and the addressee, Lotman suggests that it is better to construe the force between them as a cycle in which a process of constant translation goes on:

The act of exchanging information ceases to be a passive transfer of a message that is adequate unto itself from one bloc of memory to another and becomes a translation, in the course of which the message is transformed and the striving for adequacy enters into dramatic conflict with the impossibility of its complete realization. The act of communication begins to include the aspect of tension within itself (Lucid 1977: 97-98).

This definition completely renews the ideal and mechanic concept of communication. Lotman acknowledges that the variables exist in both the addresser and the addressee and that the participation of codes in the transformation of messages (here construed as translation) not just happens within poetic (I-I) communication but also applies to communication in general. Lotman believes that it is also the “equivalent but different” contradiction at the basis of every act of exchange that keeps the tensions and cycles moving (Lucid 1977: 96). Moreover, translation not only functions within each system but also decides the modeling primacy of one system before another:

Poetic language and natural language are particular manifestations of more general systems that are in a state of continual tension and mutual translation, and at the same time are not wholly mutually translatable; therefore the question of the primacy of one or the other communication-modeling system is determined by what is translated into what (Lucid 1977: 98).

From Lotman’s renewed concept of communication, we learn that it is translations that sustain the addresser and addressee in eternal tug-of-wars to understand each other. Therefore, incompleteness manifested in the coexistence of translatability and untranslatability is the pre-condition within the system itself and among several systems. Since the code participates in the transformation of message, it might be helpful if we recollect its function in Jakobson’s scheme—metalingual.

Considering this function in Lotman's universe, we will find that when A is translated into B, metatexts are generated in B, and these metatexts enable B with the metalingual function to model A. With this logic, Lotman defines B as the secondary modeling system, while A the primary. In his semiotics of culture, Lotman also values the orientations (what is translated into what) as decisive in determining the typologies of culture.¹⁷ Metatexts can be generated between the systems within a culture, at the borders of two different cultures or entities, and what is more, they can be self-reduplicated within a system itself:

The possibility of self-reduplication of metalanguage formations on an unlimited number of levels, along with the introduction of ever-new objects into the sphere of communication, forms culture's reserve in information (Lotman and Uspensky 1978: 229).

Because of the self-reproduction of metatexts, more than three modeling systems are possible to be generated and coexist within a culture (or entity). Self-reproduction initiates the cycle of self-modeling and self-superimposition.¹⁸ The only system in Figure 3 that Lotman does not make fuss over is artificial language because he believes that it presents no difficulty of communication: "the first link implies a single meaning for everyone" (Lucid 1977: 97). Compared with another two systems, the codes in this system are collective rather than individual. They can be the (traffic) signs in our daily lives or diagrams used in sciences that are shared by both the addresser and the addressee. It is interesting to observe how Lotman situates the position of the artificial language in both his linear and spherical schemes.¹⁹ Based on the linear scheme, the artificial language is the first link, but it turns out to occupy the nucleus of culture in the spherical scheme. This is made clear in the following:

And yet culture requires unity. In order to fulfill its social function, culture has to appear as a structure subject to unified constructive principles. This unity comes about in the following manner: at a specific stage in the development of

¹⁷ For example, nature and culture take turns being the primary and the secondary in human history. "On the metalanguage of a typological description culture."

¹⁸ Lotman believes metaliterature, metapainting, metanovels, metacinematography manifest this kind (Lotman and Uspensky 1978: 229).

¹⁹ In a group of essays, which were also written in the 1970s and later integrated into *Universe of the Mind* published in 1990, Lotman visualizes another scheme—the spheres—to bring in complexities in a culture beyond the linguistic level. With the constant shifts between the center and the peripheral among the spheres, we can better comprehend what Lotman says about the dramatic conflicts, paradoxes, and oscillations among the systems. These essays are documented as "Theses on the Semiotic Study of Cultures" (1975), "Problems on the Typology of Culture" (1977), "On the Semiotic Mechanism of Culture" (1978).

culture, there comes a moment when it becomes conscious of itself, when it creates a model of itself. The model defines the unified, the artificially schematized image, that is raised to the level of a structural unity. When imposed onto the reality of this or that culture, it exerts a powerful regulating influence, preordaining the construction of culture, introducing order, and eliminating contradiction (Lotman and Uspensky 1978: 227).

In this passage, Lotman recognizes the non-verbal quality of the artificial language as the artificially “schematized image” that regulates the diversities in culture. Although having become the nucleus of culture, the structural unity happens at a rather late stage when the receiving culture is becoming conscious of itself in cultural formation (Lotman & Uspensky 1978: 222-223; Lotman 1990: 146-47). However, its unifying character is valid only within the same culture, community, field, or domain. Lotman’s assertion that the artificial language implies a single meaning for everyone is ideal and will become problematic if the addresser and the addressee are situated in different times or cultures. Furthermore, it can still present difficulty for intelligibility if it is created in the poetic system (I-I communication) or becoming diversified because of self-reduplication within the culture itself. Just like what the mechanic linguists do in excluding the emotive potential from the reception of message, it is not fair to rule out the non-verbal elements from the functioning of language systems.

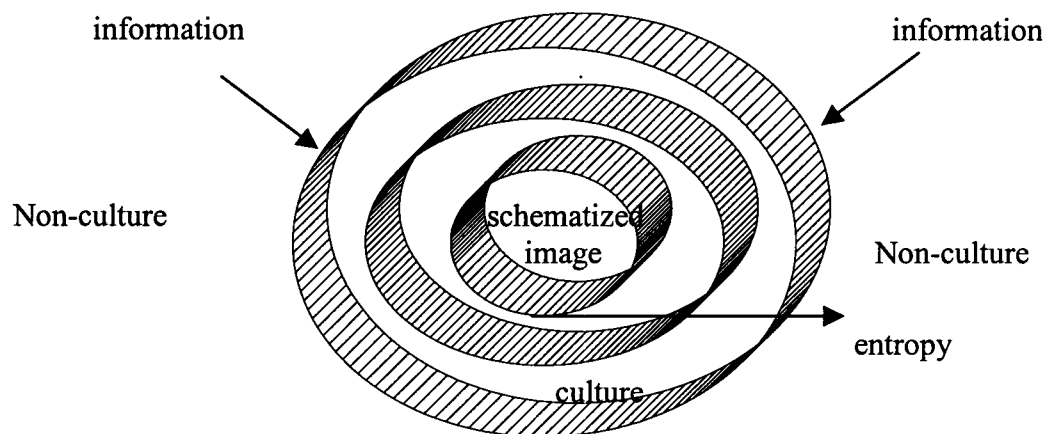


Figure 4. Lotman’s spheres of cultural mechanism (mapped by the paper-writer).

Now let us detour through Gombrich and come back to Lotman when necessary. Gombrich is concerned about the transmission and reception of a message constituted by pictorial elements. From *Art and Illusion* to *The Image and the Eye*, Gombrich has proved his thesis that both the artist and the viewer are constrained (or programmed) by their mental sets; the artist cannot draw beyond his learned devices

just as much as the viewer cannot recognize a pictorial message beyond his/her knowledge.²⁰ Locating this two-way dynamic in Jakobson's communication scheme, we can find that the artist on the addresser's end composes within a certain context (his knowledge about the function and purpose of art), uses the codes (lines, shapes, colors, perspective) available to him to represent the objects within a proper medium (framed painting, poster, website etc.). The viewer on the addressee's end picks up the message through the medium and applies his knowledge about the context and code (both preconceived and learned) to project and revise his thoughts onto the representation.

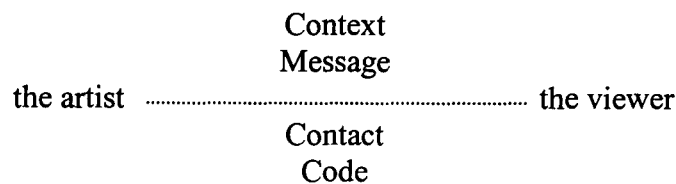


Figure 5: Gombrich's scheme of pictorial communication (adapted)

Gombrich also believes that “making comes before matching” (1984: 116). We can tell from the above dynamic of pictorial communication that both the artist's power of making a picture and the viewer's capability of making senses from the picture are generated from “the code” while their abilities of matching depend on the “context.” The incompleteness and dramatic conflicts between the “painter's commerce” and the “beholder's share” can be measured by their gaps of code and context. Taking the impressionist paintings as an example, Gombrich says,

The image, it might be said, has no firm anchorage left on the canvas—it is only ‘conjured up’ in our minds. The willing beholder responds to the artist's suggestion because he enjoys the transformation that occurs in front of his eyes. It was in this enjoyment that a new function of art emerged gradually and all but unnoticed during the period we have discussed. The artist gives the beholder increasingly ‘more to do,’ he draws him into the magic circle of creation and allows him to experience something of the thrill of ‘making,’ which had once been the privilege of the artist. It is the turning point which leads to those visual conundrums of twentieth century art that challenge our ingenuity and make us search our own minds for the unexpressed and inarticulate (Gombrich 1984: 202).

Gombrich in the above suggests that the more the artist executes the power of making, the more the viewer has to devote his energy in articulating the mysterious

²⁰ “We have seen that reading an image, like the reception of any other message, is dependent on prior knowledge of possibilities; we can only recognize what we know” (Gombrich 1972: 150-51). The controversy over this thesis in philosophy; innate or learned, absent or present.

codes. The dynamics between code and context creates conditions of illusion and determine different types of pictorial representation in art history. When they are alienated, the pictorial message seems illusory and ambiguous, like how we react to the impressionist paintings or the ancient wall paintings. When the distance between them is close, the message looks realistic and the beholder shares a great deal with the artist. Cases are like the commercial, magazine, and poster messages, in which the designer is more sympathetic with his viewers than the painters of high art (1984: 234-239). This may explain part of the reasons why Gombrich favors examples from the sketch books and the anatomy of images based on geometric shapes like circles, triangles, squares etc. along with his underlining thesis of making and matching within mental and cultural constraints. Gombrich believes that these shapes carry the most informational value in pictorial communication. When he decodes a Pompeii wall painting in which a dog and an inscription coexists, he says:

Like verbal messages, images are vulnerable to the random interference engineers call noise. They need the device of redundancy to overcome this hazard. It is this built-in safeguard of the verbal code that enables us to read the inscription Cave Canem without hesitation even though the first e is incomplete. As far as image recognition is concerned it is the enclosing contour that carries most of the information (Gombrich 1994: 141). The easier it is to separate the code from the content, the more we can rely on the image to communicate a particular kind of information (147).

What Gombrich suggests about the enclosing contour and the separation of code from the content directs our attentions to the importance of fundamental shapes in making and matching. Gombrich emphasizes that these shapes are deeply ingrained in our memory and the world, “without a medium and without a schema which can be molded and modified, no artist could imitate reality” (1984: 146). “For in a way our very concept of structure, the idea of some basic scaffolding or armature that determines the essence of things, reflects our need for a schema with which to grasp the infinite variety of this world of change” (155).²¹ In pictorial communication, schemata (a set of shapes both innate and learned) function as a constant (the invariable), while other codes, the medium, and the context add variables and thus

²¹ “What we observe is rather a continuum between skills which come naturally to us and skills which may be next to impossible for anyone to acquire” (Gombrich 1994: 83). “So important are these boundaries indicating what psychologists call ‘common fate’ in features of the immediate environment that it has been shown that animals too respond to objects in outline as they do to their three dimensional prototypes. The equivalence is so obvious that no special learning appears to be required” (283).

generate different understandings. We may appropriate Lotman's dramatic idea of internal communication to shed light upon Gombrich's study on the viewer's psychology and pictorial communication: "Given a picture that is schematized in a certain system, another context is introduced and the picture is transformed. The context constitutes the variable, and the picture differs at entrance and exit; an increase in information occurs in the picture due to its interaction with the new context."

Up to this length, we can compare Lotman's logic of the artificially schematized image in cultural spheres and Gombrich's idea about the schemata functioning in culturally constrained minds. According to Lotman's cultural cycle, the schematized images are created at a late stage of culture in proportion with the culture's awareness of itself. The more it is enriched with meta-lingual ability, the more artificial language is created to help understanding the language complex. However, in Gombrich's universe of non-verbal communication, schemata precede culture in the way that making comes before matching. If we situate Gombrich's universe of pictorial communication within Lotman's cultural spheres, we will find that schemata function at the peripheral, modeling the stimuli and information from the world, while culture functions at the center, regulating and binding understanding. Schemata have obviously served as both the cause and the result of human knowledge, both the loosely-constructed and the highly-condensed forms in culture. The oscillations between schemata and culture exist in human history and determine different types of culture. We can come to a brief contrast that Lotman's logic helps explain a linguistically sophisticated culture, while Gombrich's the shape-oriented culture. An example offered at the end of Jakobson's Closing Statement explains the confrontation of these two types of culture:

A missionary blamed his African flock for walking undressed. 'And what about yourself?' They pointed to his visage, 'are not you, too, somewhere naked?' 'Well, but that is my face.' 'Yet in us,' retorted the natives, 'everywhere it is face' (1960: 377).

Coming back to Lotman's linear scheme in Figure 3, we will find that Lotman's idea of modeling is based on linguistics and translatability; however, his idea of semiosphere suggests another model, which orients towards the non-verbal, the discrete, and the iconic information.

The importance of spatial models created by culture lies in the fact that, unlike other basic forms of semiotic modeling, spatial models are constructed not on a

verbal, discrete basis but on an iconic continuum. Their foundations are visually visible iconic texts and verbalization of them is secondary. This image of the universe can better be danced than told, better drawn, sculpted or built than logically explicated. The work of the right hemisphere of the brain here is primary. But the first attempts at self-description of this structure inevitably involve the verbal level with the attendant semantic tension between the continual and the discrete semiotic pictures of the world (Lotman 1990: 203).

Even though Lotman still keeps the modeling of language over the iconic in his universe of culture, the idea that modeling can be non-linguistic presumes that the iconic functions to model something else. Where can we find the realms that prefer the iconic as the primary modeling system? Lotman suggests that they are dancing, drawing, sculpting, and building, which are obviously visual arts. It is interesting to note that Lotman in his idea of semiosphere embraces the paradox of schema as both a cause and an end in culture. This paper serves as an introduction to the further study of schemata as the primary modeling system in visual arts.

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【附件二】Leonid Tchertov 教授發表之論文摘要與書目

Spatial Semiosis in Culture

Lotman's conception of semiosphere opens the way to development of spatial semiotics as a special branch of sign theory. There are a lot of peculiarities in the spatial semiosis, which distinguish it from the temporal ones. These distinctions are connected with some special features of semiotized space, and they touch both upon the spatial texts and upon the spatial codes. The spatial syntax has its own specific structures, which can be reversed, non-linear and continual, created without discrete signs. The differentiation relates also to semantics of spatial signs and texts, which are mainly motivated by their denotats due to similarity or contiguity. There are some pragmatic peculiarities of the spatial semiosis: the greater connection with the praxis, on the one hand, and the greater ability for the preservation of the cultural memory, on the other hand. The mainly visual character of spatial texts in plane of expression can be also considered as its specific pragmatic property. These peculiarities give some special possibilities for the spatial semiosis and make necessary its participation in the various spheres of the culture, where diverse spatial codes interact in different ways between each other and with temporal codes as well.

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【附件三】Leonid Tchertov 教授之學術簡歷

Dr. Leonid Tchertov reeds the special courses: “The Sign Systems in Culture” and “The semiotics of space and spatial arts” in the department of philosophy in Saint Petersburg State University. He was learned and graduated the Highest School of Applied Arts and Design (Saint Petersburg), and received his doctorate degree from Saint Petersburg State University, for the dissertation “The language of Object Forms and of spatial relations”. His theoretical interests include semiotics, philosophy of culture and theory of visual arts. He is author of the monograph: “Signess: An Essay on the Theoretical Synthesis of Ideas of Sign Ways of Information Transfer” (in Russian) and of many articles and reports at conferences on topics of spatial semiotics and semiotics of visual arts.

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【附件四】 Tatiana Chernigovskaya 教授發表之論文摘要

Semiotic Specificity of Cerebral Hemispheres: What Has Changed since the 80-ties?

In the 80-ties an idea of juxtaposing cognitive cerebral hemispheric functions with differing semiotic mechanisms became rather productive. It started mainly from Roman Jakobson's lecture "Brain and Language" and was developed in a set of papers (including ours) in *Acta et Commentationes Universitatis Tartuensis*; 'Psychosemiotik-Neurosemiotik' (Ed. P.Grzybek) Bochum, 1993; *Acta Colloquii*.-Bochum publications in *Evolutionary Cultural Semiotics*, 1996, v.27, (Eds. Udo Figge, Walter Koch) up to *SEMIOTICA* (Ed. T. Sebeok) 1999, v.127,1/4. The papers

presented experimental evidence from clinical observations as well as from the study in normal subjects demonstrating cerebral specialisation for different cognitive tasks - both verbal and non-verbal. Among them were animistic thinking, retention abilities, nominal realism, syllogistic reasoning, understanding metaphors, acoustic and visual perception of different complexity, etc. The idea of evolution from the right - hemispheric 'archaic' mentality to the left - hemispheric 'modern' was discussed in ontogenetic and cross-cultural aspects. Since then the problem of brain lateralization became less obvious and the data much more versatile. However, semiotic specificity appears to be the less 'ruined' of all hemispheric functions.

【附件五】會議議程: "Cultural Semiotics and Complex Cultural Analysis"

Tuesday, February 26

MUSEUM OF TARTU UNIVERSITY HISTORY, TOOME HILL

09.30 *Registration*

10.00 *Opening*

Plenary session

10.30 Mihhail Lotman (Tartu University, Estonia): Holistic vs Atomistic in Semiotics

11.00 Mihhail Gasparov (Moscow, Russia): Parafraz i interteksty

Break

12.00 Boris Egorov (Peterburg, Russia): Ob izdanii 2-go toma pisem J.M.Lotmana

14.00–15.00 Lunch

15.00 Leonid Chertov (St. Petersburg State University, Russia): The Spatial Semiosis in Culture

15.30 Tatiana Chernigovskaya (St. Petersburg State University, Russia): Semiotic Specificity of Cerebral Hemispheres: What has Changed since the 80-ies?

16.00 Anti Randviir (Tartu University, Estonia): Meaning and Space: Semiosphere and Spatialization of Meaning

16.30 Irina Oukhvanova (Belarusian State University): A Politician as an Object of Semiotic Analysis

Break

17.30 Patrick Seriot (University of Lausanne, Switzerland): The Notion of "totality" in Ljubischev's Work from the Point of View of the Tartu Semiotic School

18.00 Kalevi Kull (Tartu University, Estonia): Ecosemiotic Roots of Sovereignty

18.30 Anna Markovich (Minsk State Linguistic University, Belarus): Politicians' Interaction as an Object of Semiotic Analysis

Wednesday, February 27

MUSEUM OF TARTU UNIVERSITY HISTORY, TOOME HILL

10.00 Maria del Mar Llera (University of Salamanca, Spain): Do We Understand Each Other? Pragmatic Approaches to Intercultural Ethics

10.30 Kati Lindström (Tartu University, Estonia)

11.00 Juipi Chien (National Taiwan University): Schema as the Primary Modeling System of the Visual Arts

Break

12.00 Sadeq Rahimi (Montreal, McGill University, Canada): Semiotic Analysis and the Question of Cultural Logic: an Integrative Approach

12.30 Jerzy Jarco (Wroclaw University of Economics, Poland): National individuality of Polish mental cultures development

13.00 Natalya Kulinka (Belarusian State University): Men's Magazines Content in the Interaction of World-Views and Speech Behaviour

13.30 Kaie Kotov (Tartu University, Estonia): Making Sense in the Visual World: a Semiospheric Approach

14.00–15.00 Lunch

15.00 Kestutis Nastopka (Centre for Semiotic studies, Vilnius University, Lithuania): Two Approaches to the Myth of City Foundation: Syntagmatic and Paradigmatic

15.30 Ester Võsu (Tartu University, Estonia): Theatricality as a Model in Cultural Research

16.00 Almira Ousmanova (Minsk, European Humanities University, Belarus): History and Visual Representation: Film as a Historical Text

Break

17.00 Heidi Toelle (Sorbonne Nouvelle, France): Fire and Water in the Koranic Cosmology

17.30 Linnart Mäll (Tartu University, Estonia): Terms Denoting 'Culture' in Ancient Indian and Chinese Cultures

18.00 Marcin Brocki (University of Wrocław, Poland): Semiotics of Culture and New Polish Ethnology

Thursday, February 28

In memory of Yuri M. Lotman

TARTU UNIVERSITY LIBRARY, STRUWE 1

09.30 Opening of the exhibition dedicated to Yuri Lotman's 80th anniversary

10.00 – 10.30 Juri Lotman Scholarship Award Ceremony.

12.30 Walk to Raadi .

14.00 – 15.00 Lunch

MUSEUM OF TARTU UNIVERSITY HISTORY, TOOME HILL

15.00 Peet Lepik (Tallinn Pedagogic University, Estonia): Universalistic Ideas in Juri Lotman's semiotics

15.30 Ülle Pärli (Tartu University, Estonia): Proper Noun in Lotman's Semiotics

16.00 Han-Liang Chang (National Taiwan University): Is Language a Primary Modeling System? — On Lotman's Semiosphere

16.30 Andreas Schonle (University of Michigan, USA): Lotman and American Cultural Studies: The Case for Cross-Fertilization

17.00 Andrei Hornykh (Minsk, European Humanities University, Belarus): The Problem of Other Language in Lotman's Semiotics

18.00 Dinner

Friday, March 1

MUSEUM OF TARTU UNIVERSITY HISTORY, TOOME HILL

10.00 Elize Bisanz (University of Lüneburg, Germany): The Abstract Structure of the Aesthetic Sign

**12.00–12.15 Greeting from the President of the Estonian Academy of Sciences
Jüri Engelbrecht**

**12.15–12.30 Greeting from the representative of the Estonian Government
Aleksander Pjatigorskij (London, United Kingdom): Semiotics as Phenomenology**

**13.00 David Bethea (Madison, USA): Kak pisat nauchno obosnovannuju
"vnutrennjuju" biografiju Pushkina posle Lotmana**

**13.30 Larissa Volpert (Tartu University, Estonia): Ironija v "Kapitanskoi
dochke"**

**14.00 Myrdene Anderson (Purdue University, USA): Culture as Semiotics and
Semiosis**

18.00 Reception of the President of Estonia Arnold Rüütel

Independent Study on Perspective in Artistic Texts (2002 Spring)

藝術文本中的視覺空間專題

Time: Monday, 14:10-17:00 PM

Place: College of Liberal Arts, Seminar Room 2

Advisor: Prof. Michael Keevak

Course Description:

The idea of points of view (*les regards*) has become a feature of a certain strand in literary studies. Following the development of French structuralism, however, and particularly Gérard Genette's notion of narrative discourses, which he calls "voices" (*les voix*), there has also arisen an alternative method for distinguishing different levels of narrative. Although his idea is very enabling with respect to novels and films, and has also been used as a key term in different sorts of intertextual study, an older or more traditional idea of point of view (or perspective) still constitutes a basic category when it comes to the analysis of paintings and other forms of visual art. Even with regard to the most abstract painting we still utilize the idea of multi-perspective to describe the simultaneous presentation of different moments within the same pictorial space. We seem unable to abandon the idea of perspective when we talk about the construction of pictorial space and the creation of illusion. This course attempts to examine how specific compositional devices used in two typical styles of perspective--linear and aerial--complicate the tensions among objects, images, and perceiving subjects, and how the composition of space manifests controversy in the study of art history itself (diachronic, synchronic, or cyclical). This can be summarized, ultimately, in Boris Uspensky's notion of the semiotization of points of view as both a literary and a visual device.

Reading schedule:

Month	Date	
Feb.	20	NTU open
	25	Break
Mar.	4	Break
	11	1. Ernst H. Gombrich's "Ambiguities of the Third Dimension" in <i>Art and Illus</i>
	18	2. Leon Battista Alberti's <i>On Painting</i>
	25	3. Alberti's <i>On Painting</i>
Apr.	8	4. Alberti <i>On Painting</i>
	15	5. Leonardo da Vinci's <i>On Painting</i>
	22	6. da Vinci's <i>On Painting</i>
	29	7. da Vinci's <i>On Painting</i>
May	6	8. Heinrich Wölfflin's <i>Principles of Art History</i>
	13	9. Wölfflin's <i>Principles of Art History</i>
	20	10. Erwin Panofsky's <i>Perspective as Symbolic Form</i>
	27	11. Panofsky's <i>Perspective as Symbolic Form</i> ; "Renaissance as (and) Renasce
June	3	12. Boris Uspensky's <i>A Poetics of Composition</i>
	10	13. Uspensky's <i>A Poetics of Composition: the Structure of the Artistic Text an</i>
	17	14. Uspensky's <i>A Poetics of Composition</i>
	19	Final Term



Figure 1: Antioch Mosaic, second half of 2nd century, Late Antonine Roman Mosaic (7 ft. x 5 in)



Figure 2: Masaccio's Trinity, 1427-28, Santa Maria Novella, Florence (6.67 x 3.17 m)

Perspective and Points of View as A *Crux Criticorum* among the Ancient, Medieval, and Renaissance Traditions of Pictorial Space

The Tradition of Illusion Defined by Gombrich

One of the foremost concerns in Ernst H. Gombrich's collection of essays in *Art and Illusion* is to define the arts as "illusions." What he means with the idea of illusion is not simply illusory phantoms but rather the desirable effects, created by skillful uses of several codes, such as lines, shapes, colors, lights, and shadows. These desirable effects in art history have been modulated according to the viewers' mental perceptions and the artists' technical experiments. Gombrich also suggests that the idea of illusion and fool's paradise is deeply rooted in the western tradition. The Greeks set up the aesthetic rule of mimesis, which requires the art works to be true to nature. The anecdotes tell that the Greeks advocate "the real effects" so much that even a professional painter is fooled by another artist's work and feel like touching it as something real in life.²² Although this sounds like a perfect state and definition of illusion, Gombrich does not rely on mimesis to measure all the illusions (or desirable effects) in art history. Instead, he highlights the human compulsion to make and to create, which does not necessarily follow the rule of being true to nature.

²² For example, Parrhasios was fooled by Zeuxis' painted curtain on the panel. He eagerly tried to lift the curtain from the panel (Gombrich 1984: 206).

“Making comes before matching” is the law of human nature that Gombrich proposes to counterbalance the law of general nature, mimesis. Regarding the use of codes and techniques, Gombrich distinguishes the Greco-Roman tradition of illusion with its “tonal gradations” and “distinctive features” in creating the effects of depth on the viewers’ minds. The following is a translation from Philoponos’ commentary to Aristotle’s *Meteorologica* in 5th century A.D.:

If you put white and black upon the same surface and then look at it from a distance, the white will always seem much nearer and the black further off. Hence when painters want something to look hollow, such as a well, a cistern, a ditch or a cave, they color it black or brown. But when they want something to look prominent, such as the breasts of a girl, an outstretched hand, or the legs of a horse, they lay black on the adjoining areas in order that these will seem to recede and the parts between them will seem to come forward (Gombrich 1976: 5).

From this paragraph, we are informed that the variation between white and black creates the illusions of the surface and the hollow, the foreground and the background, and the relief of objects. Gombrich quotes another paragraph from Ptolemy’s *Optics*, which differentiates the use of white color into two functions:

[O]f two things in one place the one which has greater luster appears to be nearer—for this reason the mural painters make the colors of things they want to appear distant veiled by air (1976: 12).

This theory reveals that the use of white color has gradations between light and air, which also function to create depth in the way that the foreground should be portrayed with more dazzling and sharp contrasts while the background is more unified in tones.²³ The shining lights animate the objects with more protruding effects than the misty air. It is said that Apelles, a painter during the time of Alexander the Great at the end of the 4th century B.C., can efficiently create the lightning effects to stand out the painting with only four colors (Gombrich 1976: 15). Gombrich’s restoration of the Greco-Roman tradition’s depiction of space underlines a limited amount of colors but a multiple of effects accumulated with the gradations and contrasts of colors.²⁴ The use of codes in this tradition attempts to achieve a holistic, complementary, and distinctive impression rather than putting absolute

²³ This is also the first adumbration of the principle, which Leonardo da Vinci describes as the aerial perspective, to use white color to suggest the distance.

²⁴ This tradition of making the most uses of black and white is also summarized in Book II (pp.82-83) of Alberti’s *On Painting*.

emphasis on certain code.²⁵

Between Mimesis and the Evolution of Cultural Projects: Art Historians' Judgments

Gombrich (1909-2001) as an art historian reminds us not only of the technical and aesthetic rules of certain age but also of its psychological conditions. His interpretation of the Renaissance issue is very much different from the other two historians before him. Giorgio Vasari (1511-1574) discriminates the Byzantine and Greek traditions from the east and the Gothic tradition from the north as being crude and barbarous and he elevates the Florentine restoration of the Roman legacies as being modern. He comments on Giotto's transformation of style:

After his arrival there, assisted by his natural talent and taught by Cimabue, the boy not only equaled his master's style in a short time, but became such a good imitator of Nature that he entirely abandoned the rude Byzantine manner and revived the modern and good style of painting, introducing the practice of making good portraits of living persons, a thing which had not been in use for more than two hundred years (*The Lives of the Painters, Sculptors, and Architects*. Vol. I: 66).

Vasari's biographical surveys on Giotto, Duccio, Masaccio, Filippo Brunelleschi, Donatello, Alberti, and da Vinci illustrate a collective alienation from the crude and barbarous style and a progressive refinement of the modern codes. He believes that the codes at work that render Renaissance works modern and natural are "perspective" and "chiaroscuro," the former is to use lines and geometry to create recession and the later is the contrast between light and shadow.²⁶ We can find that Vasari's scope of art is to follow the Roman ideal of being true to nature and he judges the Medieval traditions before Giotto as being barbaric and empty for hundreds of years. He takes perspective as the absolute code of Renaissance style; however, as Gombrich reminds us, the Greco-Roman codes in creating the real and natural effects are more collaborative than singular.

From a quite different point of view, the German art historian Heinrich Wölfflin (1864-1945) attributes the reason for the blossoming of Baroque style to the

²⁵ Please refer to Figure 1 on the paper cover.

²⁶ Vasari believes that the modern style was best depicted by Filippo Brunelleschi: "He paid great attention to **perspective**, which was badly understood at the time, many errors being perpetrated, and spent much time over it, but at length he discovered unaided a method of getting it **perfectly true**; this was to trace it with the ground plan and elevation by means of intersecting lines, a useful addition to the art of design" (*The Lives of the Painters, Sculptors, and Architects*. Vol. I: 272). He summarizes Duccio with his technique of chiaroscuro: "The place of his death is not known, nor are we aware what relations, pupils or property he left. It is enough that he left to art the inheritance of his invention of **chiaroscuro** representation in marble, for which he is worthy of the highest commendation and praise" (*The Lives of the Painters, Sculptors, and Architects*. Vol. I: 166).

withering of Renaissance codes. His metaphor of blossoming and withering suggest that the artists and viewers can endow life to the codes. The Italian Renaissance is replaced by Baroque because people became bored and uninterested with the former. For Wölfflin, the empathetic and subjective reason is much more important in generating an unprecedented and new style than technical factors. With regard to the synchronic development in different areas, he observes that the use of perspective in the north is different from that in Italy. The northern tradition does not situate the vanishing point exactly in the middle but has it slanted towards the diagonal routes within the frame, and thus creates an animated flow of figures, animals, and landscape. This obviously does not meet the practice of Italian linear perspective to copy nature; however, Wölfflin thinks it satisfies the human desire for the variety and freshness of codes. In his *Principles of Art History*, Wölfflin pinpoints:

It is a mistake for art history to work with the clumsy notion of the imitation of nature, as though it were merely a homogeneous process of increasing perfection. All the increase in the surrender to nature does not explain how a landscape by Ruysdael differs from one by Patenir, and by the progressive conquest of reality we have still not explained contrast between a head by Frans Hals [1580-1666] and one by Dürer [1471-1528]. The imitative content, the subject matter, may be as different in itself as possible, the decisive point remains that the conception in each case is based on a different visual schema—a schema which, however, is far more deeply rooted than in mere questions of the progress of imitation (1950: 13).

Wölfflin here attributes the reason for the change of style and code to be more rooted within the artists' inner nature (schema) than the outer nature. The controversy over the imitation of nature or inner vision manifests two ways of evaluating the transformations in art history. Vasari takes it as a linear progression from the Ancient, the Medieval to the Renaissance, from the barbaric to the modern style, cumulating in Renaissance. Wölfflin believes in the viewers' psychological oscillations between extreme simplicity and decorativeness, which encourages the cyclical and trans-periodical development in art history.²⁷

Unlike Vasari and Wölfflin's discriminative judgments, Panofsky (1892-1968) perceives the early art history as several evolutions of cultural projects; however, those restorations of ancient values have been incomplete and the meanings of

²⁷ Wölfflin suggests that artists in different ages may share the same schemata for psychological reasons rather than historical ones. For example, he doesn't think Impressionism anything new because Baroque has made good uses of colors and light.

ancient codes have become vague or defaced for modern viewers. To the attack and ignorance of the Medieval, Panofsky justifies it as several renaissances of Greco-Roman legacies that happened in northeastern France (Carolingian *renovatio*), England (Anglo-Saxon Renaissance), Germany (Ottonian Renaissance), and the Mediterranean area (Southern France, Italy, and Spain). Based on the archaeological relics and translations of classics, Panofsky believes that people during the Medieval ages were occupied in translating and modifying the pagan codes into Judaeo-Christian ones. They are more modifications of the past in the service of the present and the future than complete imitations of the past. Later Medieval revivals even drew in the Byzantine sources, de-emphasize, and de-classicize the classical appearances (1972: 53-54). Within each renovation circle, a process of restoration, experiment, translation, and decoration functions like a cycle. These circles stand for the evolutions of their own specific codes, and they may approach and influence one another.²⁸ Panofsky concludes that several interesting cultural projects were vigorously under current during the Medieval ages and the Italian Renaissance should be conceptualized as the “conflux” of Byzantine and Gothic currents (1972: 137).²⁹

The breakthrough or the technique that marks a pivotal difference from other renaissances is the use of mathematics (or more precisely, geometry) to measure the pictorial space. However, as Panofsky argues, the code of *perspectiva* shows the least degree of similarity with the ancient codes in suggesting the space. He specifically indicates that Renaissance artists may have misread and mistranslated Euclid’s eighth theorem in his *Optica*, which stresses that the sizes of objects are not proportional to their “distances” but to the visual “angles” of the viewers.³⁰

²⁸ Panofsky uses the plural form of a French word, *rapprochements*, which mean that at least two diverse entities become close and converge. The Dictionary of L’Académie Française defines it as « d’éléments divers, et parfois opposés; réunion de deux éléments que l’on place côte à côte ».

²⁹ A proof is that the early Renaissance painters like Giotto and Duccio are still familiar with and practice these two traditions in their early years.

³⁰ Panofsky translates the eighth theorem as “The apparent difference between equal magnitudes seen from unequal distances is by no means proportional to these distances.” Panofsky traces its several different translations: (1) “Equal dimensions set unequally at distances appear least proportionately (by Zamberto, Venice 1503). (2) “Equal dimensions set unequally with proportional distances cannot be seen” (the translation that Dürer relies on). (3) “Equal dimensions standing at unequal distances from the eye do not have the same ratio of angles as their distances” (by Jahannes Pena, Paris 1557). This translation is correct from Panofsky’s perspective. (4) An Italian translation (Florence 1573) and another French translation (Le Mans 1663) follow Pena’s exactly (1991: 96-97). Leonardo da Vinci is also aware of the problem of linear perspective and he illustrates the “angles” to make up for Alberti’s lack (1989: 59).

Considering Gombrich's restoration of the tradition of illusion with Panofsky's discoveries, we will find that they are both more positive with the ancient codes in creating the illusions of space than with the Renaissance perspective. In one sense, linear perspective is a mistake because of mistranslations. In another sense, it requires an absolute foreshortening and arranges the images on the several planes in order, which may distort the living-sizes of images and make them look odd.³¹ In contrast, as Gombrich has revealed, the ancient codes work collaboratively. The Greco-Roman sense of space is depicted with the lines, colors, and volumes of the images themselves rather than several imposed lines before the images. Panofsky laments over the lost tradition and those incomplete restorations:

The Middle Ages had left antiquity unburied and alternately galvanized and exorcized its corpse. The Renaissance stood weeping at its grave and tried to resurrect its soul (1972: 113).

Distances and Angles in Suggesting Space and Carrying Meanings

The controversy over distance or angle perspective induces us to think about the gaps between truth and illusion, the encoding artist and the decoding viewers, and perspective and points of view. Gombrich's notion of collaboration rooted in Greco-Roman legacies not only appreciates the cooperation of all the codes within a pictorial space but also evaluates the viewers' "share" with the space (or the artist's design and rhetoric). With the example of the Ames chair demonstration, Gombrich points out the angular and shifty nature of human vision. Ames' perspectival construction of lines and a piece of paper within a space can be perceived as the image of a normal chair from only one of the peepholes; otherwise, they are isolated objects dangling in the air (1984: 248). This experiment implies that the artist's construction of visual pyramids and converging lines is to force the viewers to take his singular addressing position and to prevent them from being distracted with other images of an object beyond human imagination.³² In this case, the viewers and the artist are communal from the same fixed position, keep the same distance with the depicted space, and look with a single eye. They are not allowed to exercise their two eyes together in guessing, shifting, replacing, and understanding the contents within the space. However, the opposite case would help us review the

³¹ For example, the obviously shrunk body of a soldier on the foreground of Paolo Ucello's *The Battle of San Romano* (circa 1450-60).

³² "From a fixed point, any distortion in perspective can be made indistinguishable from the normal image" (Gombrich 1984: 252-53).

conditions for Medieval concept of time and space. Without the piercing line from the outside directed to the depth of space, a Medieval artist can take several positions inside the space and the viewers have to shift quickly among the different points of view. The high-heel cups, plates, the tablecloth, and the figures in the following example of Spanish Medieval renaissance reveal that the artist presents the frontal view, the aerial view, and close-up view simultaneously (Figure 3). Each of the figures is given clear profile and equal size as if the artist stayed close to them and observed them from certain angle. On the contrary, da Vinci's *The Last Supper* creates the distance between the space and the viewers. All the disciples are arranged at the two sides of a visual pyramid, completely subservient to Jesus situated at the vanishing point, the only point of attention and meaning (Figure 4).

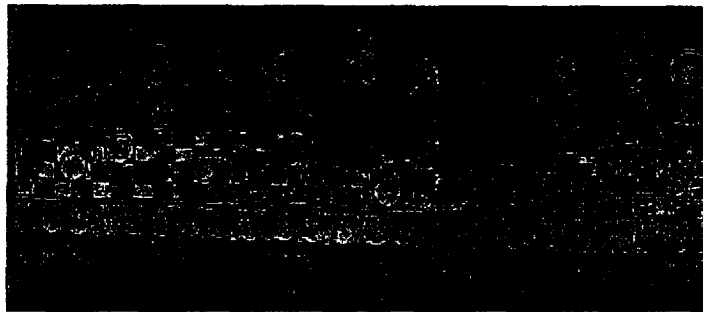


Figure 3: Frontal de Soriguerola, 13th century, Catalonia.



Figure 4: The Last Supper, 1498, Milan.

Another more systematic investigation that also applies geometry to structure space is inverse perspective. It is prevalent in most of the Byzantine Orthodox traditions of icon making. This method situates the artist and the viewers at the inside and they project several vanishing points to the outside (Figure 6). Although this may explain the rather big size of figures at the background of a typical Byzantine painting, Uspensky indicates that the size of images within this space is not proportional to their distances but rather to the objects' proximity with the artist:

[I]nverse perspective, a perspective system, which is characteristic of both medieval and ancient art, supposes an internal position of the artist, rather than an external one. One of the typical features of inverse perspective is the diminution in size of the represented objects—not in proportion to their distance from the spectator (as in linear perspective), but in proportion to their proximity to him (1973: 135-36).



Figure 5: Annunciation of Ohrid, 14th century, Byzantine painting.

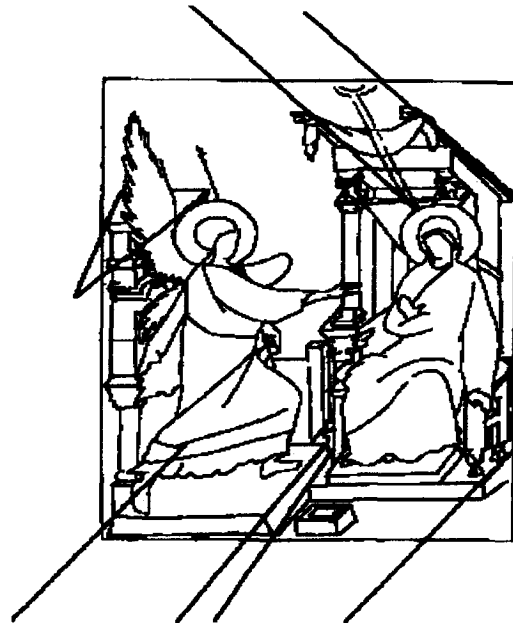


Figure 6: Scheme of Inverse Perspective.

Figure 5 shows that the three bottom bands on the ground create the depth of space. The angel is situated further to the foreground than Mary; however, they're presented in equal size. This suggests that the artist is not fixed in the background, and he views the two figures from certain angle, which renders them equal size. We can find that Figures 3 and 5 in other revival traditions manifest more truth of Euclid's eighth theorem and the shifty nature of human visual perception than Figure 4, the Renaissance tradition. The linear or direct perspective is obviously a failure with the restoration of Greco-Roman codes and an imaginary invention. Nevertheless, what is the symbolic meaning behind it that enchants Alberti, part of da Vinci, Vasari, and academic painters in the 17th and 18th centuries to endorse it as a wise and harmonious form?

The previous discussion has revealed that the building of linear perspective requires an absolute identical position of the artist and the viewers. The space perceived from the fixed position also goes well with its mechanism of time, which is a selected, condensed, and unified moment and not subject to the diachronic development. Alberti in his *On Painting* believes that this is a perfect form to carry

the meanings of a history painting (*istoria*), which is mostly about allegorical motifs, and help the viewers grow their wisdom (*la più grassa Minerva*) about the Christian belief. Figure 2 (on the paper cover) illustrates the hierarchy of the Christian order and God is admired with viewers from below. Figures 7 and 8 reveal that the vanishing points of the two triangular constructions converge at the ground floor of the elevated wall painting, which is exactly where the artist's eyes horizontally make contact with the platform of the world. Below the platform is a dead body, which suggests the underworld. In addition, converging lines from different directions lead the viewers to acquire the impression of a continuous space. Even though God in Figure 2 is framed within a vault, the viewers are encouraged to imagine an infinite continuity lying behind him, which is a perfect illustration of God's infinite power. Unlike the Medieval concept of time revealed in its presentations of multiple points of view within a pictorial space, the Renaissance models the world as a distilled and homogeneous space in order to generate the Christian and humanist illusions.

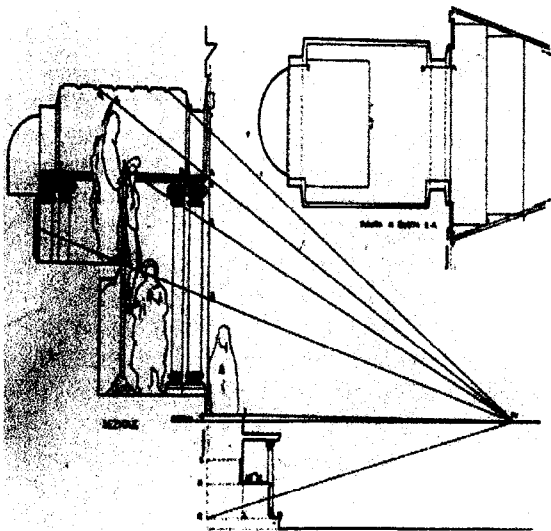


Figure 7: Side view of Trinity's scheme

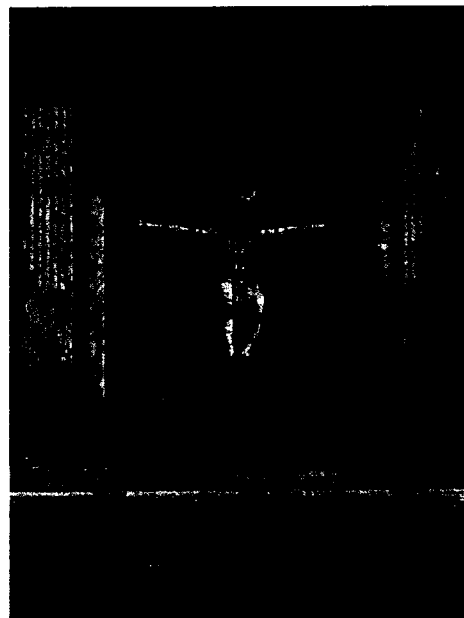
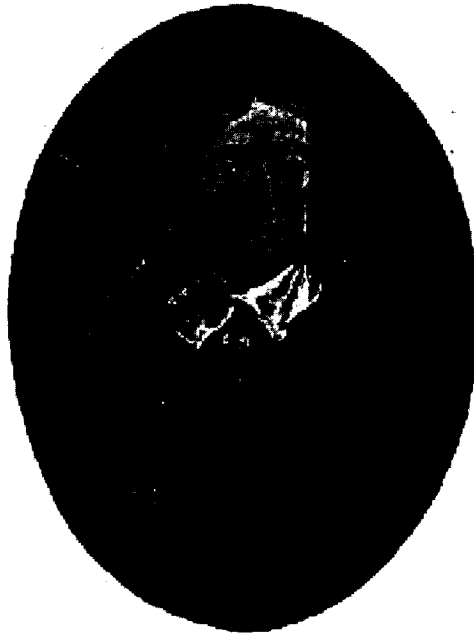


Figure 8: Frontal view of Trinity's perspective scheme

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Milton's Architectonic and Painterly Style in *Paradise Lost*

Being an architect of his time, Leon Battista Alberti in 1436 published a treatise *On Painting*, trying to teach both the patron and the artists the type of painting that moves the viewers most and how the architects can benefit from painters and poets. Alberti was at the intersection of the Medieval tradition dominated by Christian motifs and the rediscovery and translations of Greco-Roman legacies which pave the way for Renaissance. *Istoria*, the type of history painting that he tries to advocate, reminds the artists to recollect the Greco-Roman decorum and to create a variety of figures, movements, and emotions within a selected moment. Through the learning of classical geometry and examples could the artists know how to carry the feeling and meaning of an allegory with the most proper form.³³ Thus, Alberti's idea of *istoria* initiates a regeneration of a lost horizon in the past and also sets up an aesthetic standard for his time. John Milton's projects during the 1600s also reflect a mixture of the classical and the Christian learning and a restoration of the past to bring lights to his contemporaries. His restoration functions like the two edges of a Protestant sword. On the one hand, he confesses the lack of classical learning and identifies the Romans as being far more civilized than the English rabbles; on the other, he believes that Christian prophets outshine Roman orators in the sense that

³³ From a semiotic point of view, Alberti's concept of sign is full, the expression should always and necessarily refers to certain meaning (or content); there's no redundancy allowed.

the later may use rhetoric to achieve their own wicked ends.³⁴ In terms of the distance between form and content, Milton much imitates the classical and Italian forms in his poems but recycles the Christian motifs from his perspective.³⁵ This is made the most obvious in his late-year publications of *Paradise Lost* (1667; 1674), *Paradise Regained* (1671) and *Samson Agonistes* (1671), which illustrate the poet's ambition of composing a Christian trilogy. This short paper is to analyze how Milton in *Paradise Lost* (1674; hereafter abbreviated as PL) designs the forms to carry the meanings and to discover how he conceptualizes history with his verbal depictions and awareness of certain iconographic motifs in the Medieval, Renaissance, and Baroque traditions.

In plotting the sequence of narratives in PL, Milton starts with Satan's counseling with his followers in Hell. In Books I and II, Satan is just cast out of heaven but plans for new actions to fight against the prophecy of another world, earth. In Book III, the earth is newly created and God makes a contract with Son in redeeming the necessary human disobedience by Satan. In Book IV, Satan creeps and peeps into the Garden of Eden. In Book V, Eve tells her strange dream to Adam and Raphael comes down to Eden to tell the battle in heaven. Obviously, the first five books constitute a chronology, focusing on Satan's action to induce disobedience and God and Son's scheme of uniting heaven and earth in due time. From the second half of Book V to VIII, the narrative retrospects by having Raphael to recapitulate the battle in heaven and the creation of earth. Adam also recalls his first contact with God and the creation of Eve. Books IX and X come back to Satan's action to seduce Eve. Adam and Eve fall and argue over their faults before God. Meanwhile, Satan reports his triumph to his fellows, which all turn out serpents. Books XI and XII are about God's punishment and prophesy. Michael serves as an instructor to show and tell human future to Adam. The last two books lead to the necessary results of human disobedience and project visions of the future. It is interesting that Milton arranges earthly light and the creation myth at the center of PL. Milton frames PL with Satan's hovering, circling, eavesdropping, and peeping at the margin, situates the story-telling-hearing-warning scene in Eden at the

³⁴ For example, Milton praises the Romans in *History of Britain* (1670) but criticizes the Romans in *Paradise Regained* (1671).

³⁵ Roy Eriksen traces Milton's epic style back to Ludovico Ariosto (1474-1533) and Torquato Tasso (1544-1595), two Italian Renaissance poets.

center of the picture, and from time to time creates the tensions of Satan's approaching and violating the harmony of the center. Examining the history of iconography, we find that themes at the center of PL—the Battle and the Creation—have been much portrayed in paintings and architecture. However, there has been controversy over Milton's depiction of the primary modeling of earth before God's saying "Let there be light". Before listening to any of the different opinions, it is worthwhile to illustrate how Milton builds the forms to go with the meanings.³⁶

The following quotation is from Raphael's narration in Book VII.

218	Nor stayed, but on the Wings of Cherubim	[i]
	Uplifted, in Paternal Glorie rode	[o]
220	Farr into Chaos, and the World unborn;	[ɔ r]
	For Chaos heard his voice: him all his Traine	[e]
	Followed in bright procession to behold	[o]
	Creation, and the wonders of his might.	[aɪ]
	Then staid the fervid wheels, and in his hand	[æ]
225	He took the golden Compasses, prepared	[e]
	In God's Eternal store, to circumscribe	[aɪ]
	This Universe, and all created things:	[i]
	One foot he centered, and the other turned	[ɜ]
	Round through the vast profundity obscure,	[u]
230	And said, Thus far extend, thus far thy bounds,	[au]
	This be thy just circumference, O World.	[ɜ]
	Thus God the Heav'n created, thus the Earth,	[ɜ]
	Matter unformed and void: Darkness profound	[au]
	Covered the Abyss: but on the watery calm	[a]
235	His brooding wings the Spirit of God outspread,	[ɛ]
	And vital vertue infused, and vital warmth	[ɔ r]
	Throughout the fluid Mass, but downward purged	[ɜ]
	The black tartareous cold Infernal dregs	[ɛ]
	Adverse to life: then founded, then conglobed	[o]
240	Like things to like, the rest to several place	[e]

³⁶ For example, Roland Mushat Frye identifies the primary modeling as being solely done by Son and says that Milton deviates from the iconographic traditions (*Milton's Imagery and the Visual Arts*, p.159). Christopher Hill situates Milton in his theological and philosophical background and defines Milton's position of God-Son relationship as anti-trinitarian (*Milton and the English Revolution*, p.285-305). They both advocate that Milton separates the Son from the God. However, if we examine closely both the form and content of the following stanza, we will find that Milton here still endorses trinity.

Disparted, and between spun out the air,	[ε]
And Earth self-ballanced on her Center hung.	[^]
Let there be light, said God, and forthwith light	[aɪ]

The whole stanza (except line 243) can be restructured into three fragments by their rhyme schemes. In the first fragment, the [i] rhyme in line 218 and 227 forms a big enclosure, within which two smaller closures are made by [o] rhyme in line 219 and 222 and [æ] rhyme in line 223 and 226. Three circles thus form the shape of this fragment, two adjacent small ones enclosed within a big one. In the second fragment, there appears a mirror pattern and forms a small concave made by [ɜ̃] rhyme (in line 231 and 232) at the center and [au] rhyme (in lines 230 and 233) at the margin. This pattern also highlights lines 231 and 232 as the converging point. The third fragment is distinguished for its linear pattern of triplets rhymed at [ɛ] starting from line 235. The action taking place in this stanza is about “circumscribing” the earth. The first fragment indicates a band of angels and Son (uplifted in paternal glory; took the golden compasses, prepared in God’s eternal store) on the wheels. This band is mobilizing downwards from heaven but Milton’s expressions of “paternal glory,” “in bright procession,” “him all his train” make it dubious if the always shining God and the Spirit are also accompanying this train. But the “He” in line 225 should be the Son because only Christ, the Son, is portrayed as taking a compass in Medieval iconography (See Appendix 1 and 2) and there has been no proofs to show God’s taking the compass in Medieval, Renaissance, and Baroque traditions.³⁷ The second fragment obviously shows one single being doing the circumscription but Milton attributes the subject to God (thus God the heaven created, thus the earth). Based on the Renaissance iconographic tradition of portraying the Spirit as a dove, the subject shifts to the Spirit in the third fragment (His brooding wings the spirit of God outspread). However, the overwhelming power of the Spirit extends far beyond the physical constraint of a dove; it endows virtue, warmth, and grace to the earth, distinguishes the horizontal and vertical spaces of the earth (infernal, earth, air), and finally makes it self-balanced like a piece of art work. It is interesting to observe that Milton’s ambiguous denotations

³⁷ See Frye, pp. 149-168.

of “he, him, his” go with his change of rhyme schemes evolving from the circular and mirror patterns to the linear one. The epic room that Milton designs to contain the big descending band is the three circles. God’s unique action of circumscription is highlighted in a concave, or more specifically, as two concentric circles. The Spirit’s giving grace to earth is configured as a line. With these shapes and contents, Milton portrays the primary circumscription of the earth as a joint effort of the Son, God, and Spirit. The two concentric circles mirroring each other also eulogize God as a perfect architect in creating earth as a resemblance of heaven. We can find another mirror pattern formed by the end words in Book VIII, in which Raphael relates further about the celestial movements.

66	To ask or search I blame thee not, for heaven	heaven
116	Invalid that which thee to doubt it moved;	moved
117	Not that I so affirm, though so it seem	seem
129	The planet earth, so steadfast though she seem,	seem
130	Insensibly three different Motions move?	move
178	Not of earth only but of highest heaven.	heaven

This epic room from line 66 to 178 presents heaven as a fully embracing space, in which all the concentric (line 83-84), swift (line 106), numberless (line 107), insensible (line 130), and reciprocal (line 144) movements evolve. From Raphael’s perspective, he does not have a clear idea about the order of the planets (such as the center-marginal relationship among the earth, sun, and moon) but he attributes the omnipotent plan behind all the movements to God, the great architect, which is far from being completely explicated by either the angel or the human being. In addition, Raphael depicts the earth as being physically inferior to heaven because it is smaller and not self-glistening. He trusts that the earth shines because of the virtue and beams from heaven (line 91-99). However, in Book IX from line 99 to 113, Satan witnesses the earth as being much more refined than heaven.

99	O Earth, how like to heaven, if not preferred More justly, seat worthier of Gods, as built
101	With second thoughts, reforming what was old! For what God after better worse would build? Terrestrial heaven, danced round by other heavens That shine, yet bear their bright officious Lamps,
105	Light above Light, for thee alone, as seems, In thee concentrating all their precious beams Of sacred influence: As God in heaven Is center, yet extends to all, so thou

110 Centring receivest from all those orbs; in thee,
 Not in themselves, all their known vertue appears
 Productive in herb, plant, and nobler birth
 Of creatures animate with gradual life
 Of growth, sense, reason, all summed up in Man.

This monologue shows that Satan's configuration of earth and heaven sounds parallel. Satan assumes two centers, the one goes to God in heaven, and the other goes to earth, danced rounds by other planets. The two centers mutually illuminate each other but earth, the terrestrial heaven, outshines God's heaven because it receives rather than extends. From Satan's perspective, earth as a receiving center epitomizes all the celestial lights and virtues and thus generates herbal and animal lives. Milton does not here design epic room for Satan's lines but we find that Satan's power lies in his sumptuous and pompous speculations, which overflows not only his location but also the form of epic space.

Through the two angels' points of view, we are given different readings of the topography of the newly-created world. The way that Raphael relates himself to earth is negative and vague since he insists on the discrepancies between divine and human competences (though to recount almighty works / what words or tongue of seraph can suffice, / or heart of man suffice to comprehend? Book VII: line 112-114) and persuades Adam not to reach for heaven but stay lowly wise (Book VIII: line 172-73). On the contrary, Satan sensually impresses us with both the telescopic and close-up views of the earth. Since he knows that earth is created to make up for the lost of fallen angels from heaven, he carefully observes the earth in order to come up a big plan to humiliate God.³⁸ As for how God relates himself to his created world and beings, we will have to go back to Milton's narration in Book III.

56 Now had the Almighty Father from above,
 From the pure empyrean where he sits
 High throned above all highth, bent down his eye,
 His own works and their works at once to view:
 60 About him all the sanctities of heaven

³⁸ Compare Appendix 3 and 4 for the iconographic tradition of presenting the universe as concentric circles. The picture in Appendix 3 looks flat; there's no recession and thus God's pointing finger and the outer circle are on the same plane, which looks odd. The picture in Appendix 4 looks similar to Satan's close-up observations of earth; however, its whole scene is structured by a linear point of view. God's seeing at the top of the circles doesn't function to structure the picture.

Stood thick as stars, and from his sight received
 Beatitude past utterance; on his right
 The radiant image of his Glory sat,
 His Son; On earth he first beheld
 65 Our two first Parents, yet the only two
 Of mankind, in the happy Garden placed,
 Reaping immortal fruits of joy and love,
 Uninterrupted joy, unrivalled love
 In blissful solitude; he then surveyed
 70 Hell and the gulf between, and Satan there
 Coasting the wall of heaven on this side night
 In the dun air sublime, and ready now
 To stoop with wearied wings, and willing feet
 On the bare outside of this world that seemed
 75 Firm land imbosomed without firmament,
 Uncertain which, in Ocean or in Air.
 Him God beholding from his prospect high,
 Wherein past, present, future he beholds,
 Thus to his only Son foreseeing spake.

God in this stanza is not just the center of heaven but elevated above everything in heaven. The scene starts from the description of God and Son's elevated position first, follows the fragmented and smaller units of the movements of Adam, Eve, and Satan, the panorama of earth, and finally comes back to God and Son's prospect high. Milton's use of the bird's-eye point of view here shows another aspect of his architectonic style. The whole stanza functions like a frame not because of end rhymes but point of view. Within this frame, Milton presents some incessant movements, such as 'reaping' (in line 67), 'coasting' (in line 71), 'beholding' (in line 77), and 'foreseeing' (in line 79, which is just at the border of the frame). Milton uses these present-progressive verbs to create the illusion of continuous, border-crossing, and prolonged movements. The idea of coasting presents Satan in the process of sailing along the margin of earth and gliding downward to Eden without any special application of effort. God's image is not well-contoured but his glancing here and there the smaller visual fields and directing back to his Son are highlighted in beholding and foreseeing. God's high position delineates the range of panorama, the frame, but these movements negate the frame and the outlines of figures, which render this stanza Baroque and painterly.³⁹

³⁹ Refer to Appendix 5. Roy Eriksen finds a Baroque vault painting to help visualize Milton's bird's-eye point of view in this stanza: *Ingresso di S. Ignazio in Paradiso* (1691-95), in Church of S. Ignazio di Loyola, Rome, painted by Andrea del Pozzo (1642-1709). The distance and the air render

The creation of earth as a myth has been evaluated from different points of view in PL. Compared with the linear delegation of human history by Michael and Adam in Books XI and XII, the creation myth is endowed with more artistic values in its variation of forms and perspectives. Referring back to the Albertian standard of *istoria* to present a variety of figures, movements, and emotions within a selected moment, we will find that Milton's techniques in dealing with the myth and fables before the Fall meet the standard of history painting more than the patches of acknowledged human history after the Fall. After the Fall, we feel Adam's tears and Michael's severe teaching more than the amazement in the beauty of forms and movements. Milton redefines history as a process of retelling from different perspectives, recycling the iconographic traditions, and restructuring the diverse fields of knowledge, within which simultaneity, ambiguity, and estrangement are allowed.

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both God at the far end of the sky and the lower beings vague but spectators somehow have the impression of their movements. Appendix 4 and 5 can serve as a contrast between the linear style and the painterly style.

Appendix 2.



53. *Lucifer Enthroned, Christ Creating, and the Jews of Hell*, fourteenth-century English illumination, Holkham Bible, fol. 1, British Library add. MS 47681, London

14th. century

Appendix 2



56. *Christ Creating and the Fall of the Rebel Angels*, fourteenth-century English illumination, Queen Mary's Psalter, British Library Roy. MS 2B VII, fol. 1v., London

Appendix 3

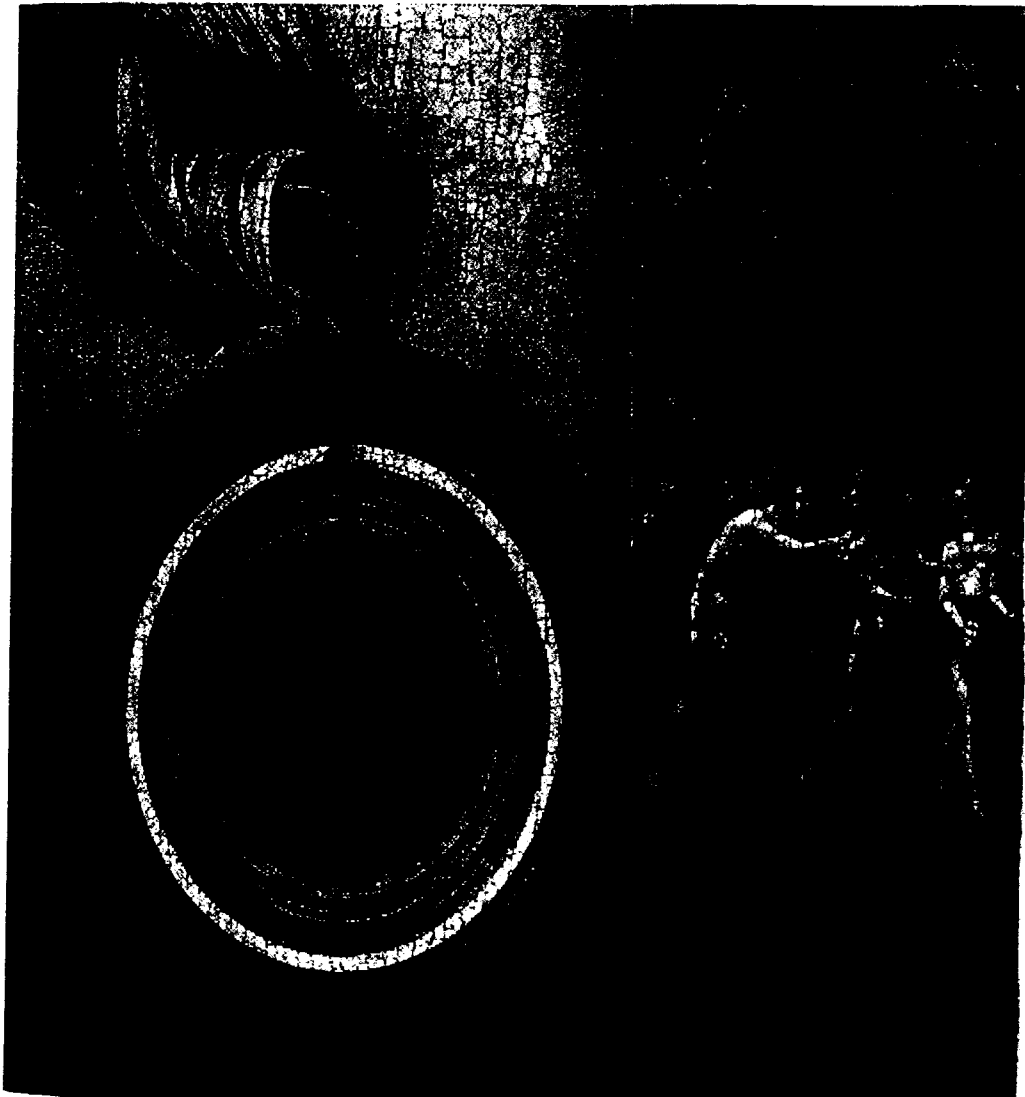
Giovanni di Paolo
Popolazioni Etrusche

The painting illustrates the lives of the Etruscans, a people of the 15th century. It shows the Etruscans in their daily life, from the birth of a child to the death of a man. The painting is a masterpiece of the Etruscan art, showing the Etruscans in their daily life, from the birth of a child to the death of a man. The painting is a masterpiece of the Etruscan art, showing the Etruscans in their daily life, from the birth of a child to the death of a man.

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15th century



Appendix 4



88. Lucas Cranach (?), *The Garden in Eden*,
illustration for Genesis in Luther's 1534 Bible, Princeton
University Library: Scheide Collection 16th century

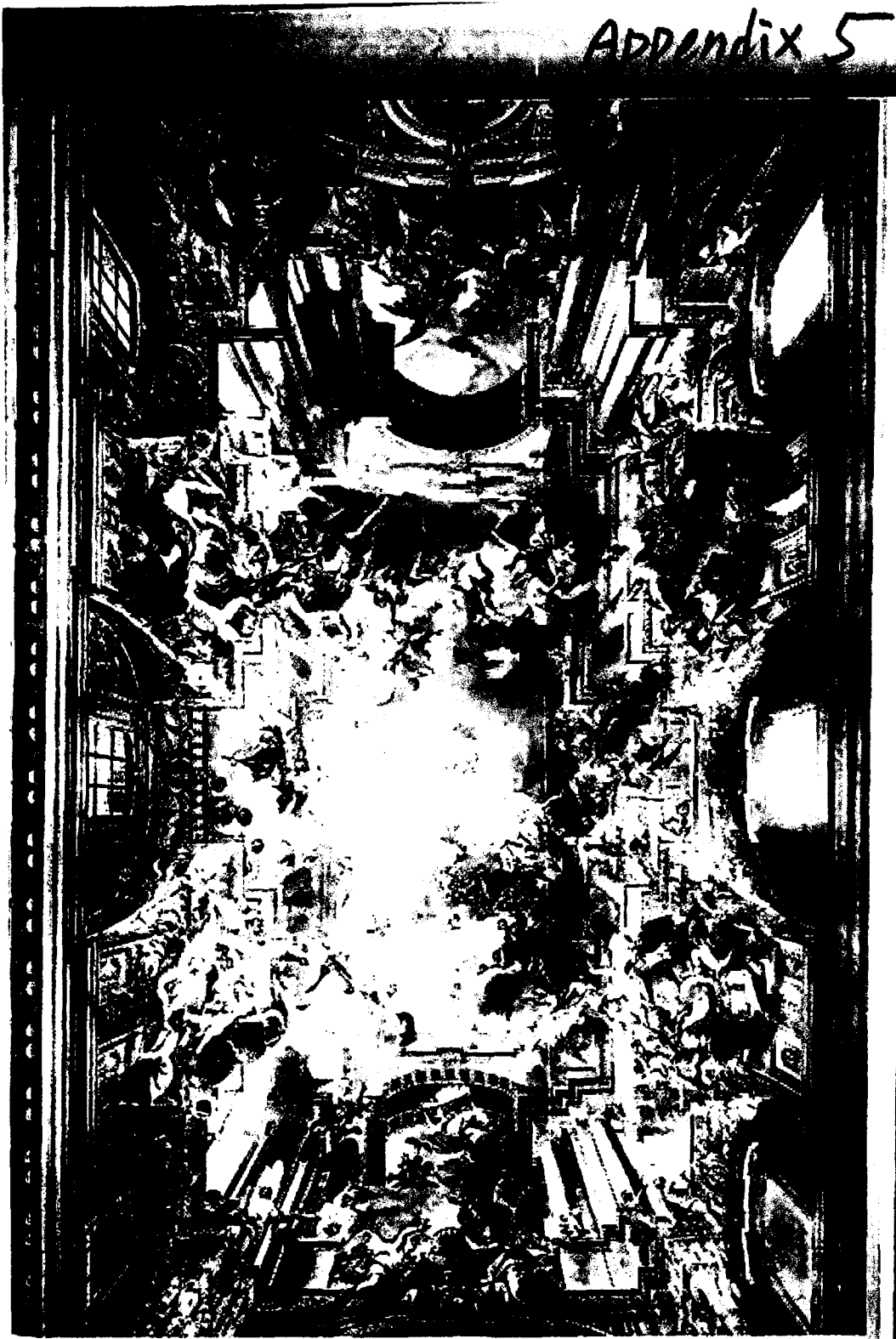


FIG. 11

Andrea del Pozzo. *Ingresso di S. Ignazio in Paradiso*. Church of S. Ignazio, Rome

(1691-95) 17th. century

Peirce Study: Diagramming and Biology
皮爾斯符號學研究
Professor Han-liang Chang
Room 155, Old Library Building

This project-related course is designed for upper-grade doctoral students interested in Peircian “semeiotic.” It will enquire into the possible links between Peirce and Kant regarding the American philosopher’s concept of categories, especially iconicity and diagramming as opposed to symbol, and enquire into the relationship between Peircian semiotics and the rising discipline of biosemiotics. The course will use Eco 1999 as the guidelines for enquiry and students are requested to read chapters 2, 3, and 6 of the book before reading Kant and Peirce.

Requirements: (1) class discussion; (2) one lengthy paper due 28th February 2003

Class Schedule

<u>WEEK</u>	<u>DATE</u>	<u>MATERIAL</u>
1	17/09/02	Eco, Ch. 2
2	24/09	Eco, Ch. 3
3	01/10	Eco, Ch. 6
4	08/10	Instructor on business leave
5	15/10	Kant, Editors’ introduction to <i>CP</i> , <i>CP</i> , 204-66
6	22/10	<i>CP</i> , 267-77. 691-704, <i>CJ</i> 15-6, 225-8
7	29/10	Peirce, <i>PS</i> , ch. 3, “On a New List of Categories,” ch. 4, “Questions concerning Certain Faculties Claimed for Man,” ch. 5, “Some Consequences of Four Incapacities,” ch. 6, “Grounds of Validity of the Laws of Logic: Further Consequences of Four Incapacities”
8	05/11	<i>PS</i> , ch. 8, “On the Nature of Signs,” ch.10, “How to Make our Ideas Clear,” ch.11, “One, Two, Three: Fundamental Categories of Thought and of Nature,” ch.12, “A Guess at the Riddle” (<i>WP</i> 6, 166-215), ch.16, “Sign.”
9	12/11	<i>EP</i> 2, ch. 2, “What Is a Sign?” ch. 12, “The Categories Defended,” Appendix, Excerpts from Letters to Lady Welby (1906-08).
10	19/11	“The Peirce-Gurney Dispute over <i>Phantasms of the Living</i> ,” in <i>WP</i> 6, 74-154.
11	26/11	Bouissac et al.
12	03/12	Bouissac et al. continued
13	10/12	Vernadsky
14	17/12	Uexkull
15	24/12	Maturana
16	31/12	Maturana
17	07/01/03	Varela, et al.
18	14/01	Luhmann, chs. 4 and 5 (Make-up session for 08/10/02)

Reading List:

(A) Primary Materials:

- Kant, Immanuel. *Critique of Pure Reason* (cited in Reading List as *CP*.) The Cambridge Edition of the Works of Immanuel Kant. Ed. Paul Guyer and Allen W. Wood. Cambridge: Cambridge UP, 1996.
- . *Critique of the Power of Judgment* (cited in Reading List as *CJ*.) The Cambridge Edition of the Works of Immanuel Kant. Ed. Paul Guyer, Trans. Paul Guyer and Eric Matthews. Cambridge: Cambridge UP, 2000.
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- . *The Essential Peirce* (cited in Reading List as *EP2*). vol. 2 (1893-1913). Ed. Nathan Houser et al. Bloomington: Indiana UP, 1998.
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(B) Secondary Materials:

- Eco, Umberto. *Kant and the Platypus: Essays on Language and Cognition*. Trans. Alastair McEwen. London: Vintage, 1999.
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Varela, F., E. Thompson, and E. Rosch. *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge MA: MIT Press, 1991.

Luhmann, Niklas. *Art as a Social System*. Trans. Eva M. Knodt. Stanford: Stanford UP, 2000.