

COMMON UNIVERSES OF DISCOURSE:  
A DIALOGUE BETWEEN SARTON AND COOMARASWAMY  
ON KNOWLEDGE AND DISCIPLINES

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**Abstract**

Historians of science have for long been debating the nuances of putting science in context. The project of contextualisation of historical narrative has now been turned on the production of historical narrative. Historical narrative too has a context of production. This essay seeks to situate a dialogue between two historians belonging to very different disciplinary genres. There is an underlying epistemological and cultural tension that characterises these distinct genres. In one sense we have here a prefiguration of the issues involved in the “science wars”, one version of which we presently witness. Alternatively, the history of science has traditionally found it problematic to integrate the contributions of non-Western cultures. We have here a prefiguration of the discussion on science and multiculturalism albeit in a different vocabulary. This essay attempts to reconstruct an exchange between the Sri Lankan born historian of art, Ananda Kentish Coomaraswamy and the Belgian born historian of science, George Sarton, during the decade 1930-1940<sup>1</sup>.

A “charitable interpretation” of the dialogue between the two interlocutors is proposed, but one that is probably more charitable with Coomaraswamy than Sarton<sup>2</sup>. Sarton was instrumental in establishing a professional identity for history of science as a discipline within academe (Thackray and Merton, 1972). Coomaraswamy on the other hand has been quite marginal to contemporary discussions on the history of ideas. George Sarton, as Thackray and Merton have pointed out, endowed the history of science with a professional identity. However, his role in conferring upon it a cognitive identity is presently considered marginal (Thackray and Merton, 1972), on account of a lack of currency in the renewal the history of sciences has been subject to in the last two decades. Ananda Coomaraswamy remains an antiquarian figure, mentioned in the popular literature on Eastern mysticism, but is better known in the history of art and comparative religion. His writing is strongly inflected with cultural pluralism, while there is an underlying universalism residing in the philological project from which he drew intellectual sustenance. In the exchange, to be discussed below, between the two we encounter the foreshadow of concerns in vogue relating to the science and narrative debate, a debate that has prevailed upon the more conventional concerns of post-Kuhnian philosophy of science. In contrast to the proliferation of disciplinary empires this debate has given rise to in the social studies of science (Galison, 1996), both Coomaraswamy and Sarton were classicists seeking a rapprochement across disciplinary boundaries.

This essay does not intend to portray the vocation of their marginality, but discusses two respective objects of investigation, the history of science and the history of art. The distinct addresses of the two

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<sup>1</sup> Eric Hobsbawm refers to the period between the First and Second World Wars as the “Age of Catastrophe”. During this interregnum “western civilisation” of the nineteenth century witnessed a breakdown, and the climate of political liberalism went into retreat (Hobsbawm, 1993:6-8).

<sup>2</sup> For a discussion on charitable interpretation see (Steven Shapin and Simon Schaffer, 1989).

interlocutors vis-à-vis their object of investigation reveal very different political predilections. Despite divergent ideological orientations, the two shared a fascination for divulging humanity's common endeavour, Sarton for narrating the history of this endeavour, and Coomaraswamy for discovering the dialect of the "common universe of discourse". This essay shall also put in context the thematic unity underlying two distinct discursive traditions. The distinction derives from the circumstance that one disciplinary formation drew its inspiration from the Cartesian worldview, while the other was inspired by nineteenth century philology. The encounter itself stands out as a very cosmopolitan dialogue.

**Key words:**

## 1. TWO COGNITIVE DOMAINS

The reconstruction that follows is based on an exchange of letters between Sarton and Coomaraswamy between 1934 and 1947 (Moore and Coomaraswamy, 1988). This exchange is coloured not merely by the apparently disparate professional and cognitive orientations of the two interlocutors<sup>3</sup>, but equally by the tension characterising the romantic narrativisation of a domain and its scientific version. Even though there are few biographies of Sarton, his opus is staple fare with most historians of science. As is well known he was born in Ghent in Belgium in 1884, and in his younger days was politically inclined to the Fabian brand of socialism rather than to doctrinaire Marxism (Thackray and Merton, 1972:477).

The history of science emerged in the early twentieth century as a discipline that sought to chronicle the rise of reason, and the founding role of reason in the rise of scientific thought and the mechanical arts. Europe was seen to have the primary role to play in this historical development (Pyenson, 1993). The historian of science Lewis Pyenson considers Sarton to be one among "the three men who discovered the history of science during the decade before the First World War..." (Pyenson, 1989): the other two being William Osler and Max Weber. Sarton was probably the most effective evangelist of the history of science during the first three decades of the twentieth century, and his conception of the discipline was embedded in the historiography of internal and external history of science. In this scheme, Sarton conceded space for sociologically and philosophically oriented accounts, but indicated that his own passion lay with the internal organisation of science (Pyenson, 1989:360). The positivistic conception of science that had received a minor setback between the wars was to remain with him throughout his life. He spent important years of his life campaigning for a professional identity for the history of science, and was successful in obtaining university positions for the discipline. He founded the journal *Isis* that continues to be an important forum for the publication of articles relating to the history of science (Thackray, 1972:476).

He shared important elements of the historical method with the other members of the aforementioned trinity. According to this shared vision, history had to do with the movement of people, and the change of ideas and structures through time. The study of the reception and

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<sup>3</sup> Coomaraswamy and Sarton may not have in their individual capacities subscribed to the terms of the divide, but each discipline is defined by a collegial circle that is bound together by literary technologies (Shapin and Schaffer, 1989).

transmission of ideas was to be complemented by “studies detailing the genesis and evolution of genius” (Pyenson, 1989:367). In this synthetic view of history the comparative method was of central importance that in turn required a mastery over the classical languages (Pyenson, 1989:368). The articles that appeared in *Isis* combined a multitude of perspectives with the historical, such that history could attain its “full significance”. This would be a step towards reaching the goal of acquiring an “understanding of the nature of man” (Thackray and Merton, 1972:478). This chronicle of reason was founded on a fundamental European nineteenth century trope (Adas, 1990), according to which the history of science as a history of the progress of humankind could subsume the history of human thought and civilisation. This chronicle of reason could re-present the evolution of humanity itself (Thackray and Merton, 1972:479). Sarton was to write: “The history of science is the only history which can illustrate the progress of mankind. In fact, progress has no definite and unquestionable meaning in other fields than the field of science” (Sarton, 1957:5).

Ananda Kentish Coomaraswamy was born in Colombo, Sri Lanka in 1877, to a Sri Lankan Tamil father, Sir Muttu Coomaraswamy, and an English lady of a wealthy Kent family, Elizabeth Clay Beely (Lipsey, 1977:7). His biographers have been miserly about the details of his life, respecting his singular aversion to the genre of biography. Lipsey quotes Coomaraswamy on the sort of biographical portrait he respected: “...if an ancestral image or tomb effigy is to be set up for reasons bound up with ‘ancestral worship’, this image has two particularities, (1) it is identified as the image of the deceased as the insignia and costume of his vocation and the inscription of his name, and (2) for the rest, it is an individually indeterminate type, of what is called an ideal likeness...The whole purpose of life has been that this man should realize himself in this other and essential form” (Coomaraswamy quoted in Lipsey, 1977:3).

Respecting his genre of biography, we shall allude to the summary details of his life. His working career can be summed up into three major periods. The years 1877-1917 were the years of apprenticeship, wherein his vocation was scientific. The years were marked by journeys, a change in profession, at the end of which he settled down to a curatorial position at the Boston Museum of Fine Arts. During these three decades, he repeatedly travelled across the globe: India, Sri Lanka, England and finally the United States. The second phase extends from 1917 to 1929. These years, Lipsey informs us were years of scholarly work and publication, and the mood was sophomoric for a man moving into middle age. Coomaraswamy reminisced about these years wherein he had “...an agreeably unsettled personal life” (Coomaraswamy quoted in Lipsey, 1977:5). His renowned collection of essays, *The Dance of Shiva* (Coomaraswamy, 1918), and the celebrated scholarly tome, *History of Indian and Indonesian Art* (Coomaraswamy, 1927) were written during this period. The last phase extending from 1929 to his death in 1947 is the most memorable in terms of his writing on art, religion, metaphysics and culture<sup>4</sup> (Lipsey, 1977:5). It

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<sup>4</sup> The astrophysicist S.Chandrasekhar points out the different manifestations of creativity in the life of a scientist and an artist: “In 1817, at the age of forty-seven when the long period of meditation, during which Beethoven composed very little, was coming to an end, he said to Cipriani Potter with transparent sincerity: “Now, I know how to compose”. I do not believe that there has been any scientist, past forty, who could have said, “Now I know how to do research”. And this to my mind is the centre and core of the difference: the inability of a scientist to continually grow and mature”. (Chandrasekhar, 1991:48).

was during this period, while living in Boston, that his friendship with the “obstinate historian of science, George Sarton” blossomed (Lipsey, 1977:251). Sarton as editor of *Isis* was responsible for seeing two of Coomaraswamy’s pieces published in the journal (Coomaraswamy, 1943/7; Coomaraswamy, 1944/7).

During the first phase of his life, we learn that, Coomaraswamy had graduated with a Bachelor’s degree in geology and botany from the University College, London, and was amongst the founders of the Mineralogical Survey of Ceylon. He was the first director of the Survey, and participated in extensive geological expeditions both in Sri Lanka and India. In 1906, London University awarded him a D.Sc. for his researches into Ceylonese mineralogy and his scientific publications on the subject (Lipsey, 1977:12). Two years prior to he acquired a place in the annals of late nineteenth and early twentieth century geology. Following Mendeleef’s path breaking research on the periodic table, geologists and chemists of the time had set out on a massive hunt for elements and ores (Bensaude-Vincent, 1986) that would fill up the gaps in the table. Coomaraswamy, true to the tradition of fieldwork undertaken within the “high geological tradition”, discovered a new mineral, thorianite (Lipsey, 1977:16; Coomaraswamy, 1904), an oxide of thorium and uranium.

## 2. THE ART OF HISTORY

The two cultures dichotomy of literature and science is premised upon the epistemological privileging of scientific truth and its modality of unravelling certitudes about the natural world. The ideology of scientism derives from premises that place science at the summit of the pyramid of knowledge, other modalities of knowing and cultural expression are debarred entry into the theatre of progress, or are subordinated to the methodological imperialism of the sciences (Snow, 1969; Hardy, 1992). Consequently, the more enlightened studies on the relation between science and art and other forms of cultural enunciation have often donned the hat of what are considered “influence studies”. These studies, assume either implicitly or explicitly, science as the source of influence, whence science is conceptualised as a “transcendent rather than a cultural enterprise” (Hayles, 1989:6). Recognising science as a culturally embodied enterprise entails the recognition that the sciences are embedded within a social matrix and hence constitutes a complex field characterised by manifold social and discursive activities.

Lipsey’s remark on Coomaraswamy’s style, ironically enough, conforms to the essence of the influence model, since it traces a “one-way line from science to literature” (Hayles, 1989:7). In contemporary discussions on science and literature three lines of investigation have emerged. The cultural approach conceptualises literature and science to be co-produced cultural forms (Hayles, 1989:19). The approach is oriented to a scrutiny of fault lines. The challenging task is to evade radical relativism for it appears to be a natural concomitant of the approach.

The encounter of the histories of two distinctly conceived objects of discourse may be initiated through the reading of Coomaraswamy’s metaphysical work, possibly catalogued under comparative religious thought, *Time and Eternity* (hereafter T&E). The book was published in 1947 - the year of his death - and then republished in 1988. This metaphysical piece may be read

by a historian of science as a history of ideas about time and eternity during the ancient and medieval periods (Coomaraswamy, 1989). In this reading of *Time and Eternity* we find homologies with contemporary notions of textuality, homologies that are analogous in form with some of the core insights of post-structural critical theory, as well as with the social construction of scientific knowledge (Edwards, 1994). Despite these differences there is an underlying unity of the goals being pursued by Coomaraswamy and Sarton. Let us examine the structure of T&E a little closely in order to expose the levels of the engagement between Eastern and Western knowledge forms.

In Coomaraswamy scholarship T&E is considered to be a work on religious exegesis. The book is divided into six chapters, and with the exception of the introductory chapter, the other five deal with theories of time in the cosmology of the great religions: Buddhism, Christianity, Islam and Hinduism. The exposition of the Greek cosmos is labelled Greece, which is a geographical label rather than a religious one. The discussion on contemporary conceptions of time appears in the chapter on Christianity. It may be conjectured that the Judeo-Christian religions provided the template for the chapterisation. The form of Judeo-Christian religion was transposed onto Hinduism and Buddhism. Greece was perceived as the founding source of the modern secular objectification of time. Similarly lines of continuity could be drawn from time as conceived within the Christian traditions and its modern manifestations.

The two central problems of religious exegeses are the problem of evil, and that of the relationship between divine Omniscience and man's free will (Stoddart in Coomaraswamy, 1989:1). In secular philosophical discourse, the mystery of time, that is apparently endless, and the mystery of space, that is seemingly infinite, is of foundational significance. Stoddart conceives of a homology between the religious and philosophical formulations of this central problematic in the manner in which they are posed in Indian philosophy. The mystery of time, is ensconced in the principle of change, and embodied in the religious imagination in the deific figure, Shiva, an intimidating presence unleashing the forces of destruction. The mystery of space finds expression in a principle of conservation and its iconic embodiment is incarnate in the deific figure, Vishnu, an affable deity representing the non-constrictive side of nature (Stoddart in Coomaraswamy, 1989:1).

Coomaraswamy seeks to reconcile Hindu and Greek emanationism with Semitic creationism. The equivalence between Hindu and Greek emanationism is predicated upon an agreement of Vedantic and Platonic ontologies, according to which things are not for real, for though they exist, like imitations they are not the real thing (Coomaraswamy, 1989:3). The reconciliation between these two conceptions is possible through spiritual contemplation, "...the religious preoccupation with life", "... an everyday spontaneism", and "...the preoccupation with the life of experience". In this interregnum of time that constitutes of life, "...the true Christian is really expected to be ... as much as the Sufi, a son of the moment", "...as much as the Buddhist Arahant...for whom there is neither past nor future" (Coomaraswamy, 1989:75).

Interestingly, Coomaraswamy does not interpret Vedanta as a doctrine of Illusion. On the contrary, he translates the conventional account by a phenomenological one that is clothed in the vocabulary of the historian of arts and manufactures. Coomaraswamy clarifies that the characterisation of Vedanta as a doctrine of illusion, that the "world is the stuff of art", (maya-

maya) is a misreading. Instead the view distinguishes between the “relative reality of the artefact from the greater reality of the Artificer (mayin, nirmankara) ...” (Coomaraswamy, 1989:4). The relation between the artefact and Artificer is analogous to the relation between being and Being, for the presence of the artefact persists in the Artificer.

But the issue of relevance to this essay has to do with how Coomaraswamy presents his reading of the different theories of temporality. The historian and philosopher of science would be alerted to aspects of this narrative. The first aspect has to do with the ecumenism of this transcendentalist. For Coomaraswamy, there existed a common dialect that bound all human beings into a community, “homo communis”, and this dialect was sacredly ordained. Furthermore, while each civilisation and its sub-cultures could display widely evident differences, there existed a domain where the severalty was subsumed as identity. Coomaraswamy drew upon the concept of *bhedabheda* from the Indian school of logic, the Nyaya-Vaisesika, to qualify this notion<sup>5</sup>.

He maintained a distance from a foundationalist project, and this is evident from the absence of any notion of doctrinal purity in any of the chapters. A characteristic feature of the exposition of the notion of temporality in any one tradition is the juxtaposition of similar notions from thinkers in other traditions. And this cross-cultural comparison violates any linear temporal ordering of the appearance of these notions: in which case it was not considered important to establish a lineage or genealogy of ideas or influences. Consequently, it is not a conventional history of ideas, since the underlying premise appears to be that similar ideas surface across very different civilisations at different moments of their history. Furthermore, it is nearly impossible to make any serious claims in the name of originality. The idea was an essential element of the older historiography of science that sought to distinguish between independent invention and simultaneous discovery. In Coomaraswamy’s historiography anything new that has been said in the past will be uttered afresh in some future epoch, and the novelty that awaits us in the future is prefigured in the voices of the past.

The idea is developed explicitly in a letter written to Benjamin Farrington, author of the classic *Greek Science* (Farrington, 1953). Coomaraswamy faults Farrington for the view that Greek science and civilisation was deeply indebted to the older civilisations of the Near East (Farrington, 1953:13). Coomaraswamy charges Farrington of methodological presentism: “what might have been described as physical (in) pre-Socratic thought is really theological thought, since the ‘nature’ they were trying to explain was not our *natura naturata* but *natura naturans*, *creatrix universalis*, *Deus...*” (cf. letter dated 8<sup>th</sup> October 1945 in *Selected Writings*, 1988:249).

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<sup>5</sup> The concept of *bhedabheda* was proposed by the Nyayika Sridhara in the 10<sup>th</sup> century AD, in his work the *Nyayakandali*, which was a commentary on Prasastapada’s *Padarthasamgraha*. The concept is translated as “identity-in-difference” in English. As Sridhara writes: “Some people argue as follows about universals: the universal is identical with its instances. We do not have judgments about two distinct entities, as in seeing a man with a stick, and we do not see a cow as qualified by a distinct entity cowness...Each individual thing individuates itself and like-wise classifies itself as of a certain kind. This explains the view known as *bhedabheda* or identity-in-difference. A universal is identical with each of its instances, which are different from each other. This being what is found to be the case, it is pointless to complain that a thing cannot be both the same with and different from another thing at the same time: this is just how things are” (quoted in Potter, 1977:519). The quotation is based on Durgadhara Jha Sarma’s edition of the *Nyayakandali* and translation is by Ganganatha Jha.

Further, he points out that it is difficult to impute uniqueness to “any local thought”, for there only exists “local colour”. Methodologically he clarifies: “*I try never to expound any doctrine from a single source ...I cannot ...conceive of any valid private axioms*” (Ibid.:250).

This historiographic commitment does not interlock with the sentiment of nationalist historiography. However, nationalism itself acquires different meanings in varying historical contexts, and we must recognise that Coomaraswamy was an ardent supporter of the freedom struggle in India. In any case, history of science framed by nationalist historiography is characterised by the presence of signifiers of pride, and these were manifest within the discourse in priority disputes. The latter are engendered by two sets of factors. Firstly, the measure of advancement of a civilisation from the nineteenth century onwards was its contribution to the progress of scientific and technological knowledge. The pride accruing to the nation was proportional to the continuity of contributions from antiquity into the age of modernity. The gold dust of this esteem certainly rubbed off on the scientists themselves. And thus - this is the second factor - the priority dispute as a source of controversy and investigation marked the preoccupation of scientists with their place in history.

Coomaraswamy concedes within the framework of the history of ideas that in the Sufi, Islamic and Christian realms the doctrine of “time and eternity”, derived from Platonic-Aristotelian sources, but that by itself was not important. The true value of historical studies resided in the demonstration of the “universality of fundamental ideas”. This view of historical scholarship was posited to be different from the historical tradition that viewed fundamental ideas as “the inventions of those who enunciated them” (Coomaraswamy, 1989:66). The priority dispute was unworthy of serious historical consideration, and the invention was far greater than the inventor. Shapin suggests that the projection of the creative scientist inventor reflected a Western bias that envisioned the act of creation as the outcome of the effort of a unique, individual and rational being<sup>6</sup> (Shapin, 1989:563). Knowledge, for Coomaraswamy is produced within communities, much as he studied artefacts that were produced by communities of artisans.

Most organised belief systems today are tormented at the metatheoretical level by the polarisation between objectivist and constructivist distinctions (Anderson, 1994:30). This opposition manifests itself as a “central cultural opposition of our time”, where the objectivist account is committed to the idea of an external, definable, and transcendent authority, while the constructivist account resymbolises “historic faiths according to the prevailing assumptions of contemporary life” (Ibid:30). For Coomaraswamy, the objectivist account, or in his own words the “literary history of ideas is of value inasmuch as it is able to answer questions concerning the veracity of a doctrine, or its heretical interpretation” (Coomaraswamy, 1989:66). The objectivist account is subordinate to the transcendental goals of the constructivist one.

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<sup>6</sup> This reconceptualisation within the sociology of science is echoed in Latour: “When we are dealing with scientists, we still admire the great genius and virtue of one man and too rarely suspect the importance of the forces that made him great...The great man alone is alone in his laboratory, alone with his concepts, and he revolutionizes the society around him with the power of his mind alone. Why is it so difficult to gain acceptance, in the case of great men of science for what is taken as self-evident in the case of statesmen?” (Latour, 1988:14).

### 3. THE COMMON UNIVERSE OF DISCOURSE

The exchange between Coomaraswamy and Sarton brims with allusions to the central civilisational tensions of their times, tensions that both parties were committed to surmounting. The two luminaries were situated at two very different posts. Coomaraswamy translates his moves from outside the universalist discourse of science and locates it on a transcendental plane. Sarton's project is located within a notion of science, ideologically moored in positivism.

The correspondence between Coomaraswamy and Sarton reveals that the former found the Western reconstruction of itself, and thus the manner in which it presented its Other, the Orient or Africa, as unsatisfactory, possibly inadequate. The source of this inadequacy is traceable to the connotation of the term civilisation (cf. letter dates 7<sup>th</sup> October 1943, in *Selected Letters*, 1988:13). The term was invariably deployed in the singular, and Greece was projected as the source of civilisation. In a letter to Sarton he discusses his differences with Werner Jaeger's work *Paidea*<sup>7</sup> (cf. letter dated 7<sup>th</sup> July 1942, in *Selected Letters*, 1988:171). This notion of civilisation was hegemonic enough to taint the Orient's recuperation of itself (cf. letter dates 13<sup>th</sup> August 1939, in *Selected Letters*, 1988:41). Consequently, Radhakrishnan's *Indian Philosophy* is labelled a "Western interpretation of Hinduism", since it had entirely ignored Islam that had significantly mediated between Eastern and Western schools of thought<sup>8</sup> (*Ibid.*: 41).

Coomaraswamy reconceptualises the term civilisation by disassociating it from the dominant Hellenophilia, and projects in its place another exemplar of civilisations. On the 22<sup>nd</sup> August 1947, five days after India had declared independence from British rule, he delivered a Farewell Address at Harvard Club, Boston, on his retirement. He summarised his life's work on Indian art, a subject that took him to the traditional theory of art, and the relation of man to his products, and to problems in iconography. The latter drew him to the sphere of comparative religion and metaphysics (Coomaraswamy in *Selected Letters*, 1988:443). His definition of civilisation echoes the Victorian disenchantment with industrialisation. His involvement with the swadeshi school of Bengal during the first two decades of the twentieth century is reflected here. This "Blakean protest" (Lipsey, 1977:105) finds a voice in a piece called "Love and Art" published in 1915: "If the advocates of compulsory education were serious, and by education meant education, they would be well aware that the first result of any real education would be to rear a race who would refuse point-blank the greater part of the activities offered by present day civilised existence...that life under modern Western culture is not worth living, except for those who are strong enough and well equipped to wage a perpetual guerrilla warfare against all the purposes and ideals of that civilization with a view to its utter transformation" (Coomaraswamy, 1915, quoted in Lipsey, 1977:105).

Underlying the disenchantment with modern Western culture was the desire to recover the romantic, artisanal, pastoral past that turns away from the hegemonic rationality of a science that was considered iconoclastic enough to demolish the sacred order. In Coomaraswamy's

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<sup>7</sup> Werner Jaeger was a professor at Harvard at the time.

<sup>8</sup> Ironically enough, a later day interpretation brings Radhakrishnan and Coomaraswamy on one side, and Kosambi and Debiprasad Chattopadhyaya on the other, as two attempts to "reconstruct Indian culture according to categories which would seem internally consistent to the Western mind" (Nandy, 1983:82).



vision of civilisation: "...a society can only be considered truly civilised when it is possible for every man to earn his living by the very work he would rather be doing than anything else in this world - a condition that has only been obtained in the social orders integrated on the basis of vocation, svadharma"<sup>9</sup> (Coomaraswamy, Selected Letters, 1988:444). Unfortunately, this Utopia was an apology for a caste-based society; and more than apology it sought to accord these formations legitimacy.

However, this definition of civilisation was not exclusivist for it was capable of embracing many more cultures within the civilisational fold. The *bhedabhedavadin* was from this vantage point offering a perspective of human culture that took cognisance of their "apparent diversity", and in these variations recognised "dialects of one and the same language of the spirit", for transcending the diversity of tongues was a "common universe of discourse" (Ibid.:444). We shall have more to say about this in the subsequent discussion on Eastern wisdom and Western knowledge.

Orientalist representations of the East, as well as late nineteenth century obsessions with the manner in which modern science was presented as a break with the past, accentuated the distinction between West and East. Coomaraswamy, on the contrary suggested that the idea of East and West as a cultural distinction as different from a geographical antithesis was a post-renaissance invention. This cultural schism was one that "presents itself only accidentally in terms of geography; it is one of the times much more than of places" (Coomaraswamy, 1947:66). This was tantamount to superposing a cultural or cognitive rupture on a geographical segmentation of the world. The variations in culture, were for Coomaraswamy analogous to that of dialects. The comparative method led him to conclude that there "is a universal intelligible language, not only verbal but also visual, of the fundamental ideas on which the different civilizations have been founded" (Coomaraswamy, 1947:66). This axiology posited a "common universe of discourse" that constituted the bases for communication, understanding and agreement (Ibid.:66).

Evident here is the influence of late nineteenth century philology. Two fundamental elements of this project were the comparative method as expounded by August Schleicher in the mid nineteenth century. The fundamental premise was that languages A and B could be genetically related even if they had no cognates in common. The second could be considered the founding postulate of the philological project, namely the idea of the monogenesis of language.

Sarton's catholic ethic compelled him to allow Coomaraswamy to articulate his views on the East-West divide. The divide within the circle of historians of science, which the Orientalists had a major role in shaping<sup>10</sup>, were framed within the diptych (Elzinga and Jamison, 1981:9).

<b>EAST</b>	<b>WEST</b>
Experiential	Experimental
Aesthetic	Rational
Intuitive	Theoretic

<sup>9</sup> The first part of this vision of a civilised society shares features exemplified in Marx's vision of a classless society. But the comparison stops there, for the latter half of this vision accords legitimacy to caste-based society.

<sup>10</sup> For a discussion between the chemist Berthelot and the Orientalists (cf. Raina, 1997).

Coomaraswamy's views can be constructed from his review of the work of the French Orientalist René Guénon. The review was published under the heading "Eastern Wisdom Western Knowledge" (Coomaraswamy, 1943). However, while Sarton published the piece, he introduced the article with an editor's prefatory note, or warning. The cautionary note read: "The author of this essay, deeply versed in Eastern as well as Western lore, is the leading mystical philosopher in this country and the most able to study Guénon's views from the inside. The Editor of *Isis* and the majority of its readers do not share those views but welcome an authoritative and sympathetic explanation of them" (Sarton quoted in Lipsey, 1977:171). A positivist readership is put on guard for the author of the essay is projected as a mystical philosopher, rightfully an authority in his domain, but culturally and epistemologically an outsider.

#### 4. COOMARASWAMY AND GUÉNON'S ORIENT

We shall briefly situate Guénon within French Indology. René Guénon (1886-1951) emerged as a French Indologist of repute between the two World Wars. Intellectually he is positioned at the intersection of two crises, the one academic and the other denominational (Lardinois, 1994:6-7). Academic Indology in the second half of the nineteenth century was torn between philologists translating and editing classical texts, and the specialists. The former paved the "royal path" to the knowledge of the Indian world, and all other disciplines were implicitly or explicitly ordered in a hierarchy subordinate to philology (Ibid.:4). In denominational terms Guénon belonged to the nineteenth century esoteric movements, characterised as neo-Thomist anti-science thought, that reacted adversely to the new religious sciences and were positively hostile to democratic and egalitarian values that were the legacy of the French revolution. The romantic reaction found a voice in Charles Maurras' right wing party l'Action Française (Ibid.:10). The Vatican affected a schism between Catholic intellectuals and the party, which led to the expulsion of Guénon, for whom in any case metaphysical principles prevailed over the "contingent aspects of political action" (Ibid.:10)<sup>11</sup>.

Both Coomaraswamy and Guénon were critiques of modernity, for they recognised in the rise of modernity the vitiation of traditional social universes. Consequently, in Guénon Coomaraswamy recognised a kindred soul who saw through the demonisation of Western civilisation despite a century of progress (Coomaraswamy, 1943:57). What are the elements of Guénon's critique of modernity that Coomaraswamy highlights? For these could well be seen as the signs of his own inquietude. Guénon rejects two cultural tenets of modernity. The first relates to the rhetorical promise of science - the idea that science would usher in the millennium. This

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<sup>11</sup> Coomaraswamy was sympathetic with the Indian nationalist cause, but there were many Indians within the struggle who found him an "uncomprising reactionary". Cf. the essay on "Young India" appearing in the collection of essays *The Dance of Shiva*. It is interesting to note that the French historian of science Pierre Duhem was a devout catholic and a French nationalist (Cohen, 1994:49). Despite Guénon's and Duhem's distinct epistemic commitments they shared the same political leanings.

rejection of Baconian optimism was coupled to the idea that the success of the modern West was epitomised by a culture based on reason and materialism (Ibid.:57). Guénon rejected both these propositions. The critique was warranted in a society that had been dehumanised by the culture of industrialism; where the fruits of scientific knowledge, that had radically altered social relations, could be abused. It is around this circumstance that doomsday prophecies were framed, for now Western man having betrayed his sacrament with God, would be enslaved by the logos of science (Ibid.:57). Coomaraswamy, at the end of this account, of which I have offered a very prosaic précis, feels that those seduced by the trappings of modernity would find Guénon preposterous, for his oeuvre lays stress: "...on these things, because it is only to those who feel this frustration, and not those who still believe in progress, that Guénon addresses himself" (Ibid.:57).

We may conjecture that Coomaraswamy was not merely heralding the views of an apostate in a sober journal of the history of science and ideas, but through a clandestine act of substitution, Guénon's voice is veritably the voice of Coomaraswamy. Why do I say this. The piece on Guénon just discussed must be read alongside another piece by Coomaraswamy republished in *Am I My Brother's Keeper*, entitled "East and West" (Coomaraswamy, 1947). The essay affirms in greater detail the principle disagreements and conflicts that are raised in the essay on Guénon, but the latter's name appears nowhere. On the contrary, there is an echo of the debates that occurred in the National Council of Education, Calcutta, during the first decades of the twentieth century. This was a movement he was closely associated with during the politically tormentous years of swadeshi (Mitter, 1994:260). The debate within the National Council of Education had to do with legitimating a program on scientific education within the framework of the nationalist struggle. An important element within this "narrative of freedom"<sup>12</sup> related to the course of industrialisation that was appropriate to India's skills and resource endowments (Raina and Habib, 1993). Coomaraswamy however fell out with the swadeshi movement on the grounds that he felt that the movements commercial thrust had subverted traditional aesthetics embodied in the crafts tradition (Visvanathan, 1985:39).

Returning to the article on Guénon, Coomaraswamy insists that the East-West distinction was a post-renaissance invention. Further, that Guénon was not an Orientalist. The reason he offers has to do with the central position accorded to pure metaphysics over other forms of knowledge in Guénon's writing. Consequently, rather than a French Orientalist, Coomaraswamy portrays Guénon as a descendant of a "predominantly Eastern tradition" (Coomaraswamy, 1943:58). What argument does Coomaraswamy offer to divest Guénon of the label Orientalist<sup>13</sup>?

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<sup>12</sup> Lyotard suggests that the "narrative of freedom" is one of the narratives of legitimation resorted to when the state "assumes direct control over the training of the people, under the name of the nation, in order to point them down the path of progress" (Lyotard, 1984:32).

<sup>13</sup> Lardinois points out that Guénon was a philosopher of doctrinal esoterism seeking to unveil tradition. This involved the task of revealing the immutable and eternal principles that assisted in forging the relationship between men and the socio-cosmic world. Underlying this project were two postulates. Firstly, that Hinduism was constituted by a metaphysical system that could be apprehended along metaphysical lines alone. Secondly, Guénon insisted on the superiority of the indigenous point of view. For the "indianiste" the Brahmins were the "authorised interpreters" of this tradition and it sufficed for the former to be their spokesmen in order to be able to express the truths of this tradition (Lardinois, 1995:12-13).

This would provide us a glimpse of Coomaraswamy’s critique of Western civilisation. Guénon, his interpreter suggests, advocates a turn to the East, for the East was metaphysical. The West had eschewed the metaphysical in its passage to the age of modernity (Coomaraswamy, 1943:59). The metaphysical world was singular, and thereby it could not be clothed in the cultural apparel of an Eastern or Western metaphysics (Ibid.:59). The intent of this turning Eastward was not to “Orientalize the West”, for were it so, the project would be no different from the mission civilisatrice, whose “proselytizing fury” was directed at the distribution of modern civilisation (Ibid.:60). Since the metaphysical was the common inheritance of mankind, the encounter with the East would restore to the West those values that had undergone the most sinister transvaluation (Ibid:59).

This transvaluation was a consequence of modernisation. In order to renew itself the West would have to reconstitute the objects of knowledge. These objects could not be the “facts of science”, or premised upon the desire for “acquiring the power to conquer nature”. Coomaraswamy then introduces a typical late nineteenth century Oriental dualism, of an East that excelled in the knowledge of the inner self, and the West that had accomplished a degree of understanding of the workings of the material world (Coomaraswamy, 1947:66). Underlying this dualism was the romantic resistance to entertain the law of progress as one of social evolution. Coomaraswamy was to write that both East and West were at cross purposes because the West is “resolved and economically determined to keep on going it knows not where, and calls this rudderless voyage ...progress” (Ibid:66). The critique of progress is relevant, for despite the attempt to paint progress with the ideological neutrality of science, it was instantaneously perceived in this circle as a politically loaded construct. Progressivism and its critique provide us with the two sides of an evangelical programme. This is schematised in the table below.

	<b>Orient</b>	<b>Occident</b>
<b>Orientalism</b>	Spiritually developed	To be infused with Eastern spiritualism
<b>Scientism</b>	To be infused with the science and technology from the West	Scientifically and technologically developed

The purveyors of progress, the torchbearers of scientism, were committed to the mission civilisatrice. The romantic Orientalists, those expressing their dismay about the vagaries of contemporary Western civilisation, pleaded for the spiritual revival of the West, the recovery of its sense of the spiritual. Coomaraswamy’s disenchantment with scientific humanism and industrialism had to do with the reduction of cultures to the “lowest common denominator” (Coomaraswamy, 1944:72). Hence any kind of globalisation would be construed as a levelling rather than an elevating force.

## 5. THE POLITICS AND OBJECT OF HISTORY

The history of the colonial era is particularly fascinating for the constructedness of historical and political categories is most evident at this juncture. Coomaraswamy's scholarly writings from the last two phases of his life betray a political revivalism, and yet, in the non-political sphere he appears as a figure fairly sensitive and appreciative of cultural diversity the world over. This kind of conservatism interposes itself more obliquely even in Sarton, whose universalism and Fabian Socialist background, did not suppress his "latent racism", and "unreasonable allegiance to the nation-state" (Pyenson, 1989:378). The more important question is that both Coomaraswamy and Sarton shared this desire to reach out to the common universe of discourse. As Coomaraswamy put it: "We need mediators to whom the common universe of discourse is still a reality" (Coomaraswamy, 1947: 74). One of the reasons why Sarton rarely figures in contemporary discussion in the social studies of science is that the progressivist faith on which the Sartonian project was founded stands challenged (Thackray and Merton, 1972:480).

Let us briefly recapitulate Sarton's notion of science: "Definition: Science is systematized positive knowledge, or what has been taken as such at different ages and different places. Theorem: The acquisition and systematisation of positive knowledge are the only human activities that are truly cumulative and progressive. Corollary: The history of science is the only history which can illustrate the progress of mankind" (Sarton, 1936:5). This fascination with global history was the product of the belief in the "unity of knowledge, in the integrity of experience, and in the need for a holistic philosophy that embraced art and science" (Thackray and Merton, 1972:487). Coomaraswamy's friendship with Sarton was testimony to this project.

Coomaraswamy appears as a figure who recognised that professedly universalist discourses came with political entanglements. It appears that he was not very successful in navigating past them. In any case, his critique of progress did not repudiate the internationalist ideal. He was to reaffirm this ideal, despite the political revanchism that haunted him: "I want to serve not merely India, but humanity, and to be as absolutely universal as possible - like the Avalokitesvara" (Coomaraswamy quoted in Mitter, 1994:260). The swadeshi movement was for him a cultural alternative to colonialism. But as Mitter points out, that it was Gandhi, steeped in the political realities of India who translated this into a political programme. Coomaraswamy's writing displays the symptoms of the migrant intellect, that as Rushdie writes, roots itself in itself and its "capacity for imagining and reimagining the world" (Rushdie, 1991:280).

At the end of his professional career he was to suggest that the encounter between East and West had produced two outcomes in India. Two personality profiles had apparently emerged. The one epitomised in figures like Nehru, hagiographers of science and modernity, who were "...queer mixtures of East and West, out of place everywhere and at home nowhere". The other outcome, in a possible allusion to Gandhi, involved "being oneself...in place anywhere...at home everywhere...a citizen of the world" (Coomaraswamy, 1947:74-75). This was a reflection of the tension produced within him of clashing self-images, and it is likely that he was himself in the Nehruvian mould, while the self "at home everywhere" remained an aspiration. On the contrary, Sarton may have aptly conformed to the latter image.

Hence on his retirement he announced to a Boston audience that having spent half his life as “a student of the manufactures” (Coomaraswamy, in *Selected Letters*, 1988:443) at Boston, he was returning to India. This return he called an “astam gamana”, a going home. (Ibid.:444). This aspect of Coomaraswamy, who had spent three-fourths of his life away from either Sri Lanka or India, drawn poignantly to an imaginary homeland called India that is interesting<sup>14</sup>. If the West in its encounter with the East were to find itself, then the East would no longer remain the “mysterious East”, an obligatory discursive Other. In case, it did not, the world would be reduced to “the present State of Europe” (Ibid.:475).

The last phase requires a little elaboration. Sarton’s passionate quest for the unity of human knowledge was impelled by the moral failure prompted by the World War I (Thackray and Merton, 1972:487). At the end of World War II he was to write: “In the better kind of world, which we all hope will be fruit of this war, the children will be expected to learn of the evolution of mankind...The history of science will teach men to be truthful, it will teach them to be brothers and help one another” (Sarton quoted in Pyenson, 1989:368). Coomaraswamy’s search for the common universe of discourse and his anxiety concerning “the present state of Europe” must be situated within this very circumstance. The foregoing account has been lopsided in its treatment of Coomaraswamy than would give comfort to the author of this essay. But this has been done to ensure that the historical context within which Coomaraswamy is located is read symmetrically. However, distinct disciplinary commitments and political orientations did not impede the two interlocutors from sharing analogous goals that had acquired greater urgency during the troubled times they lived through.

The historical methods employed while approaching their respective objects of investigation diverged sufficiently. This had to do among other factors with distinct perceptions of agency, their divergent experiences as political subjects, and the manner in which they responded to and shaped the dominant ideas of their time: progress, industrialisation, the civilising mission. Despite his radical political predilection, Sarton’s positivist inclination obscured his ability to anticipate the passing away of positivism. Coomaraswamy was drawn throughout his life to the Indian nationalist struggle, but even there he found himself at odds with those pursuing the path of critical modernisation. However, he remained ecumenical in his intellectual enterprise. His years at Boston were years of engagement with the received project of the history of ideas. Consequently, this student of the arts and manufactures envisioned a theory of knowledge that drew part of its inspiration from the former. Respecting Coomaraswamy’s vision of history, which means dispensing with the ideas of individual genius and that of anticipation or priority, it may be conjectured that his unusual location as a colonial subject enabled the articulation of this theory.

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<sup>14</sup> Rushdie, as a contemporary immigrant writer remarks: “...the past is a country from which we have emigrated, that its loss is part of our common humanity...the writer who is out-of-country and even-out-of-language may experience his loss in an intensified form” (Rushdie, 1991:12).

## 6. THE ELUSIVE RAPPROCHEMENT

This essay has chronicled the situatedness of the dialogue between Coomaraswamy and Sarton across two disciplinary formations, possibly two distinct civilisational projects. How are the tensions that segregate these realms reconfigured? From that iconic milestone in the history of science, the scientific renaissance to the age of modernity, the formations referred to as art and science have moved apart. Contemporary recognition of any reconciliation is seen to be a consequence of the cognisance academic discourse has taken of contributions non-Western cultures have made to the arts and sciences, wherein these cultures are conceived as broadly as possible and not merely in the “geographical sense of the term” (Massini, 1994:45). In one of the last papers authored before his death, the philosopher of science Paul Feyerabend, proposed three theses concerning artistic production. One of these theses underplays the importance accorded to individual creativity and invention: “If art works are natural products, then, like nature, they will change, new forms will appear, but without major contributions from isolated and creative individuals” (Feyerabend, 1994:89). Furthermore, even in the sciences and metaphysics, invention cannot be ascribed to the act of genius of a solitary thinker. Novelty is a feature of natural processes (Ibid.:91). The arts and the sciences do not embody any dichotomy in nature, and are temporary categorisations, for both scientists and artists learn by creating artefacts (Ibid.:93). In making this claim Feyerabend is not being a relativist as he is often made out to be. He clarified in one of his last books that ultra-relativism precluded the possibility of learning new ways of life. As long as the possibility of understanding existed any system was potentially all systems, and the any claim made relative to a given system lost its “power as a general characterization of knowledge” (Feyerabend, 1991:152). Thus the historian may encounter incommensurability between the belief systems of varying historical situations and actors or between the researcher and the historical actors being researched. However, Kuhn and Feyerabend argued that incommensurability could be surmounted either by becoming bilingual as suggested by Kuhn, or by enriching one’s language as suggested by Feyerabend ( Biagioli, 1996:191). The Coomaraswamy-Sarton encounter may be seen as one such attempt to bridge the gap between the two worlds by enriching each other’s understanding through such cross-talk.

This essay is itself occasioned by a renewal in the social studies of science that seeks to integrate discourses for long considered marginal to the master narrative of the history of science into a larger picture. We can find parallels and filiations between Coomaraswamy's cross-civilisational hyper-textuality and the contemporary reconfiguration of the object called science. As the technoscientific regime installs itself more securely within our life worlds, we witness a greater disunity in the images and representations of science.

Both Coomaraswamy and Sarton lived the mature years of their lives in dark and trying times. Sarton’s disciplinary response was the quest for the unity of mankind in humankind’s scientific production and learning. Coomaraswamy when confronted with a universalism he found problematic was compelled to search for a common universe of discourse that would be divested of the hegemonic contamination of the times. This may have been a radical intellectual undertaking, but Coomaraswamy was all along fairly conservative. In our own times we could ask whether post-modernism would have as radical an appeal for third world societies. One view

suggests that post-modernity is contiguous with the modes of thought that formed the bed-rock of colonialism, that it is the third stage in the occupation of the non-West. And that it had the potential of becoming the master alibi for the “continued exploitation and oppression of non-Western cultures” (Sardar, 1993:882). In a post-modern world Coomaraswamy the bhedabhedavadin and Sartre the positivist historian would still have been in dialogue seeking out the unity of humankind.

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