SUVARNABHUMI IN ANCIENT INTERNATIONAL TRADE

Miss Pacharaporn Phanomvan na Ayudhya

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By	Miss Pacharaporn Phanomvan Na Ayudhya
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Thesis Advisor	Associate Professor Sunait Chutintaranond, Ph.D.

Accepted by the Graduate School, Chulalongkorn University in Partial Fulfillment of the Requirements for the Master's Degree

…….. Dean of the Graduate School
(Associate Professor Pornpote Piumsomboon, Ph.D.)

THESIS COMMITTEE

…….. Chairman
(Assistant Professor Theera Nuchpiam, Ph.D.)

…….……. Thesis Advisor
(Associate Professor Sunait Chutintaranond, Ph.D.)

…….. External Examiner
(Peter Skilling, Ph.D.)

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วิทยานิพนธ์ฉบับนี้ สังเคราะห์ วิธีการทางประวัติศาสตร์กระแสหลักต่อการมองดินแดนที่เรียกว่าสุวรรณภูมิและสุวรรณทวีปโดยมุ่งเน้นไปที่การขยายภาพของการตั้งถิ่นฐานในช่วงต้นในเอเชียตะวันออกเฉียงใต้ที่ถูกที่เกิดจากการค้าทางทะเลในอ่าวเบงกอลและเส้นทางสายไหมทางตอนใต้แนวคิดและการดำรงอยู่ของ “สุวรรณภูมิ” ในโลกของความเป็นจริงนั้นได้รับความเห็นทั้งที่ขัดแย้งและความไม่แน่นอน นักประวัติศาสตร์อนุรักษ์นิยมมักมองว่าดินแดนแห่งนี้เป็นเพียงตำนานที่มีอยู่ในใจของนักเดินทางสมัยโบราณเท่านั้น กระนั้นการกล่าวถึงดินแดนนี้นั้นได้ปรากฏในนิทานและการจดบันทึกข้อเท็จจริงจากหลักฐาน จีน กรีกโบราณ และวรรณกรรมอินเดียซึ่งกล่าวถึงดินแดนที่เรียกว่า “อินเดียนอกเหนือจากแม่น้ำคงคา” ซึ่งทรัพยากรและสินค้าที่มีราคาสูง โดยระบุว่าดินแดนนี้นั้นอยู่ทางตะวันออกของลุ่มแม่น้ำและต้องมีการเดินเรือเพื่อที่จะเดินทางไปถึง สินค้าที่ซื้อขายนั้นสะท้อนถึงปัจจัยทางเศรษฐกิจและสังคมของปลายทางหรือพอร์ตการไหลผ่านของสินค้าโดยเฉพาะอย่างยิ่งความหลากหลายและความหนาแน่นของมัน นอกจากนี้มันยังสะท้อนให้เห็นถึงการเปิดรับและความหลากหลายของคุณค่าทางศาสนาและวัฒนธรรมที่มีการโอนไปพร้อมกับความต้องการสินค้าบริโภคอีกด้วย

มุมมองแบบดั้งเดิมที่มองว่าอินเดียมีอิทธิพลแต่เพียงผู้เดียวต่อการวิวัฒนาการของวัฒนธรรมภายในเอเชียตะวันออกเฉียงใต้นั้นอาจจะไม่ตรงเมื่อมองอิทธิพลของอารยธรรมอียิปต์และกรีกในตลาดการค้าภายในแม่น้ำคงคาซึ่งสะสมความมั่งคั่งอันยิ่งใหญ่จากการค้าทางทะเล วิทยานิพนธ์ฉบับนี้ประเมินตัวตนของสุวรรณภูมิในการค้าระหว่างประเทศในสมัยโบราณโดยใช้บันทึกการค้าโบราณและบันทึกการเดินเรือโดยนักเดินทางชาวอินเดีย รวมถึงบันทึกของไพลนีและปโตเลมีที่เป็นหลักฐานทางโบราณคดี โดยมีเรื่องของการผลิตและรายการสินค้าระหว่างประเทศ รวมทั้งการเคลื่อนไหวของสินค้าต่างๆที่พบในเอเชียตะวันออกเฉียงใต้และเส้นทางสายไหมทางใต้ จากสิ่งแลกเปลี่ยนเหล่านี้มีกฎระเบียบทางเศรษฐกิจและเทคโนโลยีที่มีอิทธิพลต่อการเกิดอาจจะเป็นของรัฐในช่วงต้น ๆ ภายในเอเชียตะวันออกเฉียงใต้และอ่าวเบงกอล การดำเนินงานทางเศรษฐกิจในสุวรรณภูมิและเอเชียตะวันออกเฉียงใต้ช่วงต้นกำหนดตัวตนและความมั่งคั่งของเงินทุนซึ่งวางรากฐานให้กับการเจริญเติบโตของวัฒนธรรมการค้าขนาดใหญ่ในช่วงหลังเช่นศรีวิชัยและทวารวดีในเอเชียตะวันออกเฉียงใต้ภายหลัง

สาขาวิชา: เอเชียตะวันออกเฉียงใต้ศึกษา ลายมือชื่อนิสิต.....

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This thesis reassesses the mainstream historical approach towards the lands referred to as Suvarnabhumī and Suvarṇadvīpa by focusing on expanding the picture of early settlements in Southeast Asia that was triggered by maritime trade in the Bay of Bengal and the Southern Silk Road. The concept and existence of "Suvarnabhumī" as an entity has always been both disputed and uncertain. More conservative historians have treated it as a mythological entity that only exists in the minds of Ancient Indic travellers. Yet, both tales and factual accounts from Chinese, Ancient Greek and Indians literatures have emerged in reference to the lands known as "India beyond the Ganges", and its highly priced resources. Traded goods reflect socio-economic factors of the destination or port the goods flow through, especially its variety and density. Moreover, it reflects exposure and variety of religious and cultural values that are transferred along with commodity demands.

The traditional perspective on the sole influences of India towards the emergence of latter advance cultures within Southeast Asia is bought into question with the style inspiration from the Egyptian and Greek civilisation in ports within the Ganges, which accumulated immense wealth from maritime trade. The thesis re-evaluates the identity of Suvarnabhumī in ancient international trade by using ancient trade records and seafaring accounts by ancient Indian travellers, Pliny, and Ptolemy, as well as archaeological evidences such as international trade items production and movement found within Southeast Asia and the Southern Silk Road. Among these are economic regulations and technology that possibly stimulated the emergence of Early States in Southeast Asia and the Bay of Bengal. Economic operations from and to Suvarnabhumī and Early Southeast Asia define its identity and capital wealth, which laid grounds for large maritime cultures that operated as trading gateways such as Sri Vijaya and Dvaravati.

Field of Study : Southeast Asian Studies Student's Signature .....

Academic Year : 2011 Advisor's Signature .....

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Chapter I
INTRODUCTION

Background and Significance of Problem

The concept and existence of "Suvarnabhumī" as an entity has always been both disputed and uncertain. A number of historians treated it as a mythological entity that only exists in the minds of Ancient Indic travellers. This thesis will argue that main stream previous academic works done on Suvarnabhumī were scoped under the political-civilisation model that focuses on identifying location and/or statehood. Furthermore, efforts to claim historical significance by both nation states and local or religious communities have resulted in a mythological definition of Suvarnabhumī, giving it an "Atlantis" status. Consequentially, these deviations neglect the etymology of the term, which was an entitlement for an international 'trade' destination or route by Pali/Sanskrit speaking people. Rather, focus was given more to the linguistic meanings and potential location. Contemporary academics, especially in the field of history and archaeology, have dedicated their efforts to finding the location of Suvarnabhumī within Southeast Asia. Whereas evidences have never suggested that it is outside Southeast Asia, colonial school historians are limited identifying Suvarnabhumī under the empire model rather than other forms of state that may have been more localised to the context of Southeast Asia such as "*mandalas*"[1].

Secondly, the existing paradigm's approach resulted in a never ending quest and competition to label a location in particular nation states as the 'centre' of Suvarnabhumī. The contemporary paradigm of Suvarnabhumī resulted in a never ending process to match archaeological evidences from specific sites or location under the "Suvarnabhumī" classification. Hence, the existence of Suvarnabhumī will never be identified since identifying it relies on exogenous variables rather than endogenous

[1] The term "mandala" is used to explain political structure in Early Southeast Asia, whereby political leaders seek to expand spheres of influence in term of wealth and culture rather than governance control. Rulers, defined with divine and universal authority, would claim personal hegemony over the other rulers in his mandala. In theory the smaller mandalas rulers are considered obedient alliances and vassals, but not necessarily in practice. (Wolters, 1982)

variables, such as its original reference and description on 'trade'. Furthermore, the importance of "Suvarnabhumī" as a trading identity will never be fully explored since academic importance is given more towards its identity as a location rather than its role on the Southern Silk Road[2]. This thesis will approach Suvarnabhumī as a gateway to a network of trade within Southeast Asia, and expanding out, within the Southern Silk Road during the Late Bronze Age, up until to emergence of "classified" cultures like Funan and Sri Vijaya.

Lastly, this thesis will re-evaluate and reconstruct the definition of Suvarnabhumī and its identity by looking at its original scope -international trade. Traded goods reflect socio-economic factors of the destination or port the goods flow through, especially its variety and density. Moreover, it reflects exposure and variety of religious and cultural values. Hence, from the perspective of international trade, the thesis will use: ancient trade and religious records; archaeological evidences such as international trade items production, density, and movement; and local myths and legends, as a means of reflection on the identity of Suvarnabhumī in ancient international trade.

Research Question

What are the span and trends in socio-economic development impacts of the trade networks that were connected to Suvarnabhumī and Suvarṇadvīpa through the Bay of Bengal Sphere of Interaction during late prehistory until 3rd century CE?

Hypothesis

Trade with and within prehistoric Southeast Asia, up until the 3rd century CE, have directly formulated socio-economic development in Southeast Asia as well as brought about economic prosperity in the Bay of Bengal. A significant centre of this trading network in Southeast Asia is a destination referred to by ancient sailors generally as "Suvarnabhumī" and "Suvarṇadvīpa".

[2] To avoid confusion, it is best to explain that by the term "Southern Silk Road" this thesis will treat the term as both the "Oasis Silk Road", which runs from Chengdu Plain, crosses the province of Yunnan and Myanmar and further into India and Central Asia, and the "Southern Maritime Silk Road", which crosses the sea from East Asia, through Southeast Asia, South Asia, Arabia, and into the Mediterranean Basin.

Limitations of Study

This study will limit itself to the trade description and trade conditions of Suvarnabhumī and Suvarṇadvīpa as found in literatures and archaeological evidences. It will explore the late South and Southeast Asian prehistoric timeframe until the 5th century CE, when recognised cultures like Funan and Dvaravati were established, but it will not disregard data that may suggest an influence to the establishment of the known urbanised cultures within Southeast Asia. This study does not aim to end the dispute on the precise location of "Suvarnabhumī" and "Suvarṇadvīpa", but employ the name as a general trade destination route through Southeast Asia that ancient merchants regard as profitable ventures.

Research Process and Methodology

This thesis conducts a historical review of literatures and archaeological evidences that involve "Suvarnabhumī" and "Suvarṇadvīpa", by looking for trade references that appeared related to Southeast Asia during the studied time frame. Employing historical approach in combination with economic review, it will draw conclusions through reviews of primary sources such as Pliny's account and various copied versions of Ptolemy's map and analysis on traded goods such as beads, and literature accounts made in India, especially in the Arthasastra and other Hindu and Jain records. The thesis will focus on the sources from the Bay of Bengal, particularly Tāramlipta and Sri Lanka during Neolithic times into the latter years of the early Christian era, which according to literature was the maritime gateway to Suvarnabhumī.

To conduct this research I have used two sources. One, would be the surmountable literatures on trade that seem to scatter between either purely Silk Road knowledge, which explains the land route with little mention of its connectivity to Southern Maritime Silk Road, and literatures directly on the Maritime Silk Road, which seems to cluster itself and ends in India or skip directly over to the ports of China. Through the assistance of the librarian of the Bangalore Mythic Library, I was able to access some reference and documents as well as archaeological survey reports in the Indian Peninsula and Bangladesh, in which I discovered intricate links and mention of

the economic roles of Suvarnabhumī and Suvarṇadvīpa on the development and progress of urban settlements in Eastern India, particularly those within the Ganges Delta. The medieval copies of Classical Maps at the British Library provided the necessary confirmation that ancient seafarers not only knew about the existence of the mythic landmass, but also the fact that Suvarnabhumī and Suvarṇadvīpa, might not have been the only countries present on Southeast Asia at the time, but rather a hub of access to the trade network. Combining this with Professor Himanshu Prabha Ray's much detailed opinion and earlier work on the trade network, an economic picture and the much underestimated roles of Southeast Asia in the Southern Maritime Silk Road began to emerge. The second source employed in this research are the evidence and analyses on the large amount of trade wind artefacts that are scattered throughout Southeast Asia and the world from Japan to Rome, especially the Indo Pacific beads that seems to have played more important role in trade than just jewellery. I thank the curators at the National Museum of Bangkok, Suphanburi Provincial Museum, and Rajburi Provincial Museum for their opinions on the artefacts and identifying the relevant age sources and archaeological sites that were relevant to the trade network. This research bases its foundation on the latter day's analyses made by Professor Ian Glover, who questioned the dogmatic chiefdom identification of Southeast Asian trade network. Analysis made within this thesis is an economic review of the trade picture in early Southeast Asia, by matching it against the literature figurative image of wealth in Suvarnabhumī and Suvarṇadvīpa.

The presentation of the thesis illustrates the following arguments:

1. The span of connectivity "Suvarnabhumī" and "Suvarṇadvīpa" has with international trade via the Bay of Bengal network, and the different cultural thoughts that flowed within this particular trade network. This will rely on ancient travel and trade accounts, as well as archaeological findings record on the Indo-Roman trade network and the translated Far East trade records like the water chronicles.

2. The economic valuation of goods traded with "Suvarnabhumī" and "Suvarṇadvīpa" as well as trade technology capacities such as cargo ships and boats capacity and production capacity required to establish such trading network. This will employ written records by Panini and the Arthasastra for reference as well as archaeological hypothesis on ancient Greek, Indian and Chinese trading ships that were sailing the seas during the time. Valuation estimates will be done by taking price and cargo capacity of the goods through records on ship technology. It will also analyse production capacity and technology development by looking at archaeological artefacts found in Southeast Asia such as glass and construction technology.
3. To find supporting evidences to the literature, the thesis will explore the possibility of Southeast Asian technology and goods found among archaeological evidences outside Southeast Asia. These evidences will be used to argue in support of Southeast Asia's presence and trade influence on its trading partner, such as potential boat technology of Southeast Asian kind found among prehistoric goods in Sri Lanka. It also demonstrates a bi-polar relationship, rather than the formerly perceived giver-taker relationship between India and Southeast Asia.
4. Finally, this thesis will introduce a new argument on the economic history of the region on "Suvarnabhumī" and "Suvarṇadvīpa" by using the laws of reciprocity and linking the Bay of Bengal Interaction Sphere and evidences of commodities found around it to construct a macroeconomic picture. It will also argue that the cultural foundations formulated through trade shows the presence of directly non-Indian and indirectly non-Indian, such as urn styles that were absorbed from India but were not authentically Indian.

Chapter II

LITERATURE REVIEW

Literatures and studies relating to Suvarnabhumī can be separated into three, not necessarily independent, categories: terminology, location studies, and trade items. The study of terminology is mostly performed by historians, with a few exceptional analyses by linguistic archaeologists; most of the time, it relies heavily on available ancient accounts and literatures from India and China. Occasionally, Classical accounts are used, but most citations are outdated and sources are rarely reviewed. Studies on accounts, including its interpretation, can be separated into different periodicals. Historical accounts composed of accounts that were made during the time Suvarnabhumī was still a trade direction reference, while others are accounts that were made during latter periods. Analytical accounts can be divided into two periodicals, those that were interpreted records from earlier studies of Southeast Asia like those of McCrindle and Yule, and more recent and broader analyses like Briggs, Wheatley, and Hall, respectively. The former is more influenced by colonial school of thoughts than the latter; nevertheless, both types of work scope on identifying the location of Suvarnabhumī and Suvarṇadvīpa. The latter historical analysis on the subject particularly those performed by D.G.E Hall and O.W Wolters, as well as latter to contemporary scholars, would include trade items as part of the analyses. These items analyses are done in the manner where scholars match trade item descriptions that were in Ancient Indic accounts with production origins in Southeast Asia such as the "Agaru" within the Arthasastra. Simultaneously, the recent decades have experienced an expansive research on Late Bronze Age Southeast Asia and its trading items within the Southern Silk Road, such as the works of Kenneth R. Hall and Himanshu Prabha Ray. However, these the two independent, but not exclusively unrelated, works were never linked because of Suvarnabhumī had always been treated with a mythic approach due to the lack of archaeological evidences linking literature to actual physical location in Southeast Asia. However, the location, treated as a specific state like entity, had

always acted as a preface for further analyses on the role of Southeast Asia and the Southern Silk Road. Without intricately linking the description given in early Indic accounts to actual Silk Road evidences, it is difficult to establish a clear picture of the actual entity that ancient writers wrote about. In time, whatever identity described associated with Suvarnabhumī and its related entities disappeared as stronger names with supporting archaeological evidences like Funan and Sri Vijaya emerged. Consequently, Suvarnabhumī and other names referred in early history were assumed lost in the mythical realm of ancient imaginations. In order to further understand the emergence of early Southeast Asian states and the roles trade assumed in its foundation, one must re-evaluate the missing link on the identity of Suvarnabhumī in the ancient trade network.

The meaning of the name itself is probably a factor which led to its highlighted status a mythical location that drew in ancient travellers seeking wealth. The origin of the name "Suvarnabhumī" (Sanskrit) or Suvaṇṇabhumī (Pali) translates into "golden" (Sanskrit: 'Suvarna'; Pali: 'Suvanna') and "peninsula/ island" (Sanskrit: bhumī). Traditionally, it is a description of a land mass that coexisted with "Jambudvīpa", traditionally defined under Vedic terminologies as 'realms of earth' or 'the land where man lives'. Alternately, Jambudvīpa is also treated later on as references to "India", which is predominant in Southeast Asian and some Sri Lankan references. Various interpretations of Suvarnabhumī exist in Southeast Asia and India, one of the interpretations is based on the old Javanese Hindu references, the term "Dvīpantara" or 'the islands between', is considered as the land extended from 'Jambudvipa' (modern Indian subcontinent) to 'Astralaya' (Australia in archaic Javanese language). 'Dvīpantara' is a term in Kavī, a form of Sanskritised Ancient Javanese language. Other earlier references to the land labelled as "gold producing land", where merchants have to cross seas to reach, refers to the land as "Suvarṇadvīpa", the word is used in Sanskrit, meaning "continent or land surrounded by water". The same connotation is used for Jambudvipa, which is believed to be surrounded by great oceans. The meaning of Suvarnabhumī as a land mass or trade destination could also be taken as a more

metaphoric definition as 'the golden mountain' or 'peninsular of wealth and prosperity', which is similar to the concept of the Meru Mountain. Previously, Suvarnabhumī and Suvarṇadvīpa had been addressed as a specific and sometimes sole destination in Southeast Asia. Its classification ranges from trade emporium, small city, to a country like entity. Indian texts analyses often are done in separation with Chinese and other accounts. Since Suvarnabhumī and Suvarṇadvīpa are treated by its meaning, scholars would usually assume that similar names in other accounts such as Chin Lin in the Chinese literature would be a reference to the same location. There are missing links to this analyses, one being the failure to formulate a holistic picture of Suvarnabhumī from foreign accounts aside from its notion of "gold and wealth", another is the dominating 'presence' of Suvarnabhumī as an early Southeast Asian entity which clouds out descriptions of other entities in the relative geographical area. In order to avoid the stated problems, this thesis will treat Suvarnabhumī as a geographical trading network destination that ancient traders visited rather than a specific location.

Studies on Suvarnabhumī have been based on two sets of evidences: archaeological evidences, and texts. It is important to remark, that both of these evidences are an ongoing discovery process, and that conclusions on this elusive entity should be reviewed constantly. There are no precise records as to when Indic civilisations came to know about Suvarnabhumī, or its first contact as a trading destination. However, by 5th century BCE, stories of successful merchants' ventures into Suvarnabhumī already appeared. Works on the subject has, hitherto, been confounded to location specific studies, with the exception of the late Ian C. Glover, who did not have enough time to fully explore into the possibility of prehistoric trade and Suvarnabhumī, but laid a good foundation into trade linkages between India and pre-historic Southeast Asia in his works The Southern Silk Road: Archaeological Evidence for Early Trade Between India and Southeast Asia. It is important to remark that there is no written evidence, discovered so far, within Southeast Asia itself, to state its status as "Suvarnabhumī"; thus, all accounts of parts of Southeast Asia as Suvarnabhumī and Suvarṇadvīpa are from sources outside Southeast Asia. Studies into

the existence of Suvarnabhumī often relied on two evidences: literature accounts, and archaeological evidences. The latter is an inference by academics to match civilisations in Southeast Asia with "Suvarnabhumī" in the literature.

Amongst the studies done on the subject, the most comprehensive analysis given on the description of Suvarnabhumī as a location was done by Thanit Yupho in his work Suvarnabhumī. He advocated that Suvarnabhumī is located somewhere between Southern Myanmar down to the Malay Peninsula. This challenges the views of older scholars like George Coèdes and Indian researchers, who believe that Suvarnabhumī, if existed, is located somewhere in Southern Myanmar, near the Tennessarim Coast. Combining his arguments with archaeological findings, as well as Chinese and Greek literature, his view reflects the works and influence of its contemporaries such as those of Paul Wheatley. (Wheatley, 1983) (Wheatley, 1961) According to academics supporting the similar line of arguments as Yu-pho and Wheatley, Southeast Asia through the interpretation of Ptolemy's map could be divided into three sections: Agrye (Silver Land), Chryse (Golden Land) and Aurea Chersonese (Golden Peninsula). Agrye is perceived by most scholars as the coastal strip of Arakan, Noel Singer argued that the Greek scholar Erasthosthenes's map (276-194 BCE) reflected the "coastal strip of Arakan, but contains no description on cities", yet, the map also shows the "Yoma Range", a view also reflected in Strabo[3]'s map (63-24 CE). According to Singer, the latter dated Ptolemy's Geographia map has a "clear coastal line of Arakan, which includes port city of 'Sada', 'Berabonna' and a river 'Sados Flu' (thought to be present Kaladan)". The Yoma Range in the map was recorded as Meandrus Mons, with an inland city towards the north called, "Triglyphon". Ptolemy also quoted Pomponuis Mela, an ancient traveller who stated that towards the east of the Ganges River is a land called "Agrye" that had numerous silver mines and a capital city known as "Sada". (Singer, 2008) It is important to note that the argument for the precise location of Agrye itself is still being debated, if it is indeed located on the Arakan coastal line as Singer believes, then further south of Arakan, which surpass the Irrawaddy River would

[3] Strabo/Strabon (63-64BC – AD 24) Greek historian, geographer, and philosopher

be "Chryse". The Golden Land (Chryse) as argued by Yupho (Thanit Yu-pho, 1967), Wheatley (Wheatley, 1961), and Moorhead (Moorhead, 1965), whom based their interpretations on Ptolemy's records, which contained scattered navigational accounts of harbour cities within the Indian Ocean, is a land southward from Agrye, passing the Irrawaddy, and beyond Martaban Bay. From Chryse onwards, there is a large port stop known as "Takola Emporium" that most scholars agree believe to be either the present day Takuapa or Trang Province in Thailand. Ancient travellers would have to travel further south passing Junk Ceylon or modern day Phuket to reach the Golden Chersonese or golden peninsular, which scholars now agree is the Malay Peninsula. (Moorhead, 1965) (Wheatley, 1961:151). Furthermore, early Chinese accounts also talks about the similar silver and gold lands, with the golden land referred to as "Chin Lin" or "Chin-Ch'en" that is situated 2000 li to the west of Funan. Lawrence Briggs argued according to the records of the Funan conquest that Chin Lin might have been situated in the North of the Gulf of Thailand. (Briggs, 1962), while the idea was disputed by Wheatley, who hypothesised that Chin Lin lies to the east of Malacca (Wheatley, 1961: 116,117). Archaeologists in Thailand like Yu-pho, Manit and Srisak Wallipodom have used the Malay Peninsula argument to support their analyses on the Late Bronze Age trading cities within the Gulf of Siam, such as U-Thong in Suphanburi Province, Thailand, that might have acted as trading centres similar to Suvarnabhumī. (Thanit Yu-pho, 1967). The debate on the precise location of Suvarnabhumī is still ongoing, with more complications on the Southeast Asia Archipelago, which Wheatley identified as Aurea Chersonese, or the Malay Peninsula, while Indic literatures like the Rāmayana, refers to it as Suvarṇadvīpa or the Golden Island, and Indonesia as Yavadvīpa or Nusantara. To this point, the debate on the precise location of these ancient literary locations are still ongoing, but it could be concluded that these land lies somewhere within Southeast Asia, to the east of the Ganges River, between the Tenasserim coast and the Malay Peninsula. This thesis will centralise its study only on Suvarnabhumī or Chryse.

Even though many works were published on the debates concerning the location of Suvarnabhumī and Suvarṇadvīpa, its significance and roles in the ancient trade network was never fully addressed. Indic literatures, such as the Rāmayana, Jatakas, and Puranas, often recognised the name as a high risk and high return maritime trade venture. In addition, there were also records made on trade commodities from Suvarnakudya and Suvarnabhumī in the Arthasastra of Kautilya.

The term Silk Road is a historical reference to the great caravan trails from Loyang in Northern China across the high arid plateau of Central Asia and Iran, Southern Russia and Near East. This view obscures the importance of maritime trade in the Ancient world, which were greatly advertised and prided upon by Indian cities as proposed by Himanshu Prabha Ray. Trade route through Southeast Asia is often referred to as Southern Silk Road, which concerns trails southward from Yunnan into Vietnam, Thailand, Laos, and Myanmar, as well as the Great Sea Route that covers the coastal ports of Southern China along Vietnamese coasts, around Cape Ca Mau, into the Gulf of Thailand, to the Straits of Malacca, the small routes across the peninsula that links it with shipping routes across the Bay of Bengal to the West and Arabia. Ian Glover believes that this regular commercial trade route across the Bay of Bengal "began much earlier than we have hitherto believed, and that we have to look back into prehistory, using the methods of field archaeology to identify its earlier stages, and to understand its logic." (Glover, 2006) Glover's reference to prehistory combined with ancient literatures on such trade would scope the reference to this trading network back to approximately 5th century AD, with the start of Buddhism and the rise in importance of the trading castes in India, until around the 3rd century AD and later when noted cultures like Funan and Dvaravati emerged. This period coincides with the Early Historical Urbanisation Period (300 BCE – AD 600) in the Bay of Bengal, when notorious maritime trading cities like Tāramlipta and Chandraketugrah "sprang to urban life almost as if suddenly". (Chattopadhyaya, 2006) From the 1st Millennium BC onwards, the presence of Indian Hindu civilisation in Southeast Asia is undeniably found almost everywhere except in the remote and forested interior of the Philippines and eastern

islands of Indonesia. There are evidences of religion, cults, artefacts, religion, language and culture that are "Indian or modelled on Indian prototype". Many ambiguous external historical sources both Chinese and Indian have recorded the Indianisation process in Southeast Asia. Many scholars have presented and these analysed data in numerous books, referring to (Briggs, 1962) (Coedès, 1968) (Singer, 2008) (Wheatley, 1983) (Saraya, 1999) (Phasuk Indravuth, 1996).

The expansion of Indo-Roman trade route in South Asia with the arrival of the Greeks in South Asia in the latter part of the 1st Millennium BC seemed to have played a role in trade increase eastwards, especially into Southeast Asia. Greek and Arab traders were interested in pearls and tortoise shells. (Ray, 1995) believes that the eastward Aryan expansion movement during the Maurya period combined with heightened importance in maritime trade attributed to the emergence of significant trading cities in the Bay of Bengal, amongst them Tāramlipta, which was described in the Kathāsaritsāgara as "pre-eminently the home of rich merchants who carried on overseas trade with Ceylon and Suvarṇadīpa". In History of Ancient Bengal, R.C Majumdar also stated that the Kathāsaritsāgara also mentioned a sea captain who disembarked from Tāramlipta to Katahā in the Malay Peninsula. (Majumdar: 345) Glover believes that simultaneously with the rise of trade outside Southeast Asia, there were also surges in trade between Mainland and Island Southeast Asia towards the end of prehistory. He argued the Indo-Roman trade played a role in these activities with the rise in demand for, "exotic and prestigious items of consumption and adornment in the sophisticated urban civilisations of the Mediterranean Basin, India, and of course, China." There were needs for trade in "spices, perfumes, precious stones and pearls, silks and muslin tortoise shell, ivory, and rhinoceros horn, dyes and unguents, ghi, lac..." (Glover, 2006) Much of these archaeological evidences have died, decayed, or transform beyond sourcing, with only scattered remnants found of the trade network such as the Indian ivory elephant found in Pompeii and the Greek Bronze lamp found in Yala Province. (Glover and Alvey, 1985) Much of the studies on the complexities of the trade route lies between the Roman and India end rather than the onwards route from

India into Southeast Asia. The Greek and Roman experience to maritime trade with India was certainly advance with entrepreneurial ventures undertaken for commercial profits, facilitated by the use of coinage and accumulated capital. A particular good that might draw attention from the Indo-Roman trade is clove. Cloves were known in China by the 3rd Century BCE, and to Rome, Pliny have recorded it in the 1st century BCE, it was responsible for transforming the Moluccan society from scattered kin-based communities of hunter-gatherers to cultivators to stratified coastal trading states and petty empires. Southeast Asia, especially the Malay Peninsula and the Archipelago is heavily rich in cloves, nutmeg, and mace. Indianisation scholars like Roy Ellen concluded that "It was the spice trade which was partially responsible for the Indianisation of Southeast Asia and which facilitated the spread of Islam. It was responsible for the growth and demise of numerous states on the commercial routes from the Indies to the Mediterranean." (Glover, 2006) If spices were as much valued like gold as they were to the latter European empires, then it would have certainly been a big demand back during the 1st millennium BCE. However, most scholars, even Glover, believed that trade with and within Southeast Asia could not have gone beyond Middleman Trading and Port of Trade modes. (Renfrew, Sabloff, and Lamverge-Karlovsky, 1975), with the absence of clear archaeological evidences most scholars are left with only textual records. Consequently, trade before the 3rd century AD in regard to Southeast Asia were described more as a *drift*[4] by Scholars like (Wheeler, 1954) and (Raschke, 1978), who did not believe that the highly organised mercantile commerce of the Indian Ocean extended at that time across the Bay of Bengal. In fact, (Raschke, 1978: 653) argued that if commercial links between India and Southeast Asia were on a regular basis at all, it did not happen before the 3rd to 6th century AD, Glover supported this idea although leaving in question the level of its validity given the opportunities to discover more archaeological evidences rather than few items found in Thailand and Vietnam. There are also possibilities of an extension of "the Big Man prestige goods reciprocal type of economy which is so well documented for recent Melanesia," which

[4] Movements of objects through intermittent, short-distance reciprocal exchange networks

postulated "earlier societies within Southeast Asia as well as for many other parts of the prehistoric world". (Glover, 2006: 62) (Renfrew, Sabloff, and Lamverge-Karlovsky, 1975: 558-561) On the contrary, it is worth noting that literature evidence from China and India talked about constant flow of maritime trade between China and India, in the Bay of Bengal, as well as horse trade from Central Asia into Southeast Asia as early as 3rd century AD. The Chinese text speaks of *Yeuh-chih* merchants as continually importing horses to *Ko-ying* country, believed to be situated in the Malay Peninsula. (Bhaumick, 2001: 73)

Scholars like (Ray, 1995) believes that there were complex trade network across the Bay of Bengal in latter pre-history, "commodities involved included semi precious stones, gold, horses, pearls, gems, diamonds, and so on", while intra-Southeast Asian trade can be seen through the distribution of the Dong Son drums and "bowls of high tin bronze", which was unique to Southeast Asia. Horses being particularly interesting since they play a connecting role with hinterland trade route. Horses were transported from Central Asia through the Northwest of India, and Variga, where it is sent out through the Indian Subcontinent, and reaching Southeast Asia via Tāramlipta (Bhaumick, 2001). Ray also pointed out that the concentrations of these objects are usually associated with gold and tin rich deposits as well as their association to boat burials sites. This means that as there are more archaeological findings combined with literature sources, there are large possibilities of a well-established trade network within and through Southeast Asia by the 1st millennium AD, the significance of the trade route as a wealth creator, navigational destination, and trade establishment have existed Indic literatures which dated back to the 5th-6th century BCE. There are some epigraphic accounts of contacts between the people of Bengal and Southeast Asia, mostly in the form of trade. However, certain local texts in Southeast Asia have suggested direct immigration and linage associated with India. Scholars arguing in support of Ganges civilisation direct impact on the rise of urban states in Southeast Asia have referred to these texts for reference, particularly the Kalyani inscription which states that settlements in Suvarnabhumī was colonised by people from Bengal, the Golas (Gaudas),

who later establish the Mon Kingdoms (Chowdhury, 2006). The inscription itself suggested both the existence of previous settlement since it was "colonised" as well as interactions and knowledge flow between the Bay of Bengal and Southeast Asia during pre-history. It is worth noting that disputes are still ongoing on the validity of the Kalyani inscriptions as a literal narrative the people's history or simply one of the many attempts by local rulers to elevate their lineage heritage. Nevertheless, the awareness of different groups of people in the Ganges Delta in Myanmar, and other parts of Southeast Asia, as well as trade interaction, suggests a mingling of different races. While many local researches of developments during the prehistoric era, found sophistication in Bronze and Iron works, community structures, as well as signs of trade significance. (Higham, 2010) (Srisak Wallipodom, 2002)

Previous analyses and works done by scholars in the literature aspect have not only placed the existence of Suvarnabhumī and Suvarṇadvīpa in the ancient trade map, but archaeological evidences have begun to reveal the significance it plays on the trade network. However, analyses on archaeological evidences have mostly been done to ratify the existence of the locations rather than the commodity flow which impacted the ancient world and Southeast Asia, even lesser are the impact Southeast Asia or Suvarnabhumī has on cities or society in the trade network such as Tāramlipta and Ceylon. This is due to the lack of depth in studies regarding the historiography of the period in both South and Southeast Asia, where the primary sources are located. (Glover, 2006) The dimensions of connectivity and valuation of good flows between Southeast Asia and the rest of the ancient world is underexplored. Potentially like the case of Tāramlipta and Chandraketugrah, most prehistoric settlements in Southeast Asia could have "sprang" to life from the heightened importance in the maritime and land trade network, which was particularly important back in the early Christian era. This would mean that not only "Indian" conceptions of the Aryan culture were present in Southeast Asia, but potentially there may also be inspirations from trading cultures that traded with ports in India that traded with Southeast Asia. These elements of inspiration are often disregarded because of generalisation of Indian culture, as well as

failures to connect the span of the trading network into further trade impact analysis. This study will connect the trade network that ran through Suvarnabhumī and Suvarṇadvīpa with the trading network that connects with its trade partner cities in the Bay of Bengal, as well as analyse the socio-economic impact on development commodities traded play on the development of culture in Southeast Asia.

Chapter III
TERMINOLOGY, AN IDENTITY FROM TRADE NETWORK

Contemporary studies on Suvarnabhumī, such as those in Thailand, could be divided into two lines of thoughts. One would only refer to documents from India in order to remain true to the name "Suvarnabhumī", which diverts the study towards more religious texts and the movement of Buddhism into Southeast Asia. The other would focus on matching names in historical literatures with archaeological sites. This often leads to equations being formed between different historical texts from different cultural sources. For example, Suvarnabhumī (Sanskrit) becomes the equivalent of the Chinese's "Chin Lin", and the Greek "Chryse". This identity lumping is drawn from the meaning of the name, which is "land of gold", which then becomes a mythical paradise to modern school of nationalistic history. Even without the accounts of the "land of gold", there are many places which such description and characteristics found across Southeast Asia such as Myanmar, Thailand, Malaysia, and the Philippines. The existence of these places will be later explored in the classical literature section of this research. Nevertheless, archaeological evidences have yielded support for these locations in both the traces of abundant gold mines and artefacts. There is only one thing missing, nowhere in Southeast Asia have archaeologist uncovered a primary source from such locations that states the name "Suvarnabhumī". Could the idea of Suvarnabhumī have been more than one location? Or if we are to compare the Funan accounts we would find that even the Tun-hsűn description was a cluster of five societies sharing perhaps the same market or culture. Hence, the lack of clarity in establishing the identity of Suvarnabhumī and describing it may be partially explained by the lack of usage in other sources outside India. Without integrating the every description of references on Early Southeast Asia and complementing historical evidences, the mystery behind the identity of Suvarnabhumī may never be resolve.

Characteristics of Southeast Asia and its History

Looking at the geography of Southeast Asia, the coastline extends over 104,877 kilometres, divided into Mainland Southeast Asia (Peninsula Southeast Asia) and Island Archipelago. Over the course of history, it has transformed from chiefdom, to various city states, to Mandala state entity, and finally nations of the 21st century. From the cultural entities of the past where division among states is more defined by sphere of economic and cultural influence, the emergence of nationalism gave way to the concept of nation states. Under the shadow of Western empire model, and political motives in historical views the perception of Ancient Southeast Asia deviates from its original cultural economic identity to the political entity of latter day states and civilisation. To fully grapes the concept of the trading entity Southeast Asia and the emergence of early Southeast Asian cultural centres such as Dvaravati, Sri Vijaya and Funan as a by product of trade and migration during the early Christian era, it is important the notion of modern ethnic and nationalism be reduced, but observation should be given more the economic and cultural factors present at the time. Supporters of Indianisation theory has pressed forward the view that the expansion of Indian maritime power began an orientation towards a colonial development, where by Indian merchants and migrants from India took over and ruled in Southeast Asia and triggered developments towards Indic cultural preferences. (Majumdar R.) (Chaudry, 2006) On the other hand, counter believers argue that it is a long time-span historical process of integration, trade and migration. This thesis does not support the former view, but will explore the spheres of trade which inspired the economic and cultural identity of early Southeast Asia from the 5th century BC to approximately 3rd century AD, where clear Indian cultural presence in the region has been established.

The approach towards identifying Suvarnabhumī as a 'thriving' centre of urbanisation and trade was a view enlarged by earlier studies on Southeast Asia by scholars from the colonial perspectives. The empire model, commonly found in western and near east antiquities imposed assumptions of centralised state development in early Southeast Asia settlements. Hence, studies on the concept of Suvarnabhumī became

entrenched in the location identification rather than its macro-perspective role identity in the ancient world. Moreover, latter studies which focused on Indianisation concepts were overshadowed by ideas that civilisation began in the Near East and spread its way forward through India and finally reaching Southeast Asia. The emergence of Southeast Asian culture in the 5th century onwards were attributed to the expansion of Indian civilisation, which disregarded possibilities of local development by means of trade which initially brought merchants to Southeast Asia (Ray, 1995). This is not to account the thriving 'merchant' guilds that were set up to facilitate trade within the Indian Ocean, which increased tremendously during 3rd century BCE (Dhida Saraya, 2011), many references were made to specific guilds and their monopoly over trade routes and commodities, as well as specialised knowledge in sea navigation that would get traders to a particular destination.

Conventional historical and archaeological analysis made in regard to artefacts and sites in Thailand and Southeast Asian studies are usually based on two foundation: art history and artefact association. Artefacts are judged base on its art characteristics, which were classified into different period and cultural or 'civilisation based on prior conception of the style within that cultural sphere. In contrast to antiquity studies in other areas such as the Middle East or China, Southeast Asian artefacts are often studied independently in a particular aspect such as its art form instead of approaching its roles and function to the particular culture as well as cultures around it. Analysis concerning artefacts and Southeast Asian history are greater developed in the form of Art History, rather than its archaeological value. Many artefacts, such as different sculptures and carvings, are analysed for its artistic qualities and relative value as a decoration object. Due to the absence of findings and developed studies in written or mythic account, most artefacts are simply dubbed "of particular culture" rather than "created because of". As a result, it is difficult to establish a comprehensive story on a particular age or cultures in antiquity. A problem with Archaeological studies in Southeast Asia, which also extends to South Asia in particular the Ganges region, is that the examination of urban settlements are done so acutely in a vertical manner. Early

historic sites have been excavated vertically or in the form of laying trail trenches in order to determine the cultural sequences rather than providing a picture of the total settlement configuration. Moreover, there are minimal intra-regional efforts among different nations within Southeast Asia to create a holistic picture of the region. References to various ancient culture studies that exist in multiple nations are still often analysed as a national basis rather than the specific culture in itself, such as Sri Vijaya, which becomes a dispute between references to Malay, Indonesian, or Thai, and Dvaravati, which becomes a modern relation to the Mon race as an association with the geography of Myanmar rather than an element of the respective Mon culture on Dvaravati sites. Archaeological studies in antiquity would often obsess over objects rather than providing a comprehensive picture of the people and the relations those artefacts have with people. Focus have been greatly invested in temples, burial ground, religious artefacts and site as oppose to settlements area, which creates a missing perspective on the people living inside the culture. Moreover, scientific dating of early cultural artefacts especially those belonging to the Dvaravati culture is highly scarce, and if exist would often conflict with art history dating. For example, radio carbon dating at Chansen and U-thong pushes the establishment of Indian culture presence in settlements back to 2nd century CE, while art history would conservatively classify the establishment of Dvaravati well into the 5th century CE. Consequently, this leads to an establishment of a fragmented picture of each particular cultural development in itself, and in relations to the overall development of civilisation in Southeast Asia as a whole. The same problem also extends to texts dating in both South and Southeast Asian history where the true date origin of texts such as the Jatakas and the Arthasastra are hardly solidified. Part of this problem is due to the domination of oratory tradition in both regions during early history; hence, a particular account may have existed in oratory form prior to the "discovered" text account, which could only be dated to a certain time period. On the other hand, historical studies that tries to create a more comprehensive regional picture, such as those pushed forward by Dhida Saraya (Dhida Saraya, 1999), would often be based on the spheres of cultural development on particular tribal identities that later evolve into national identities such as Tai, Malays,

Mon, or Khmer. It is worth noting that in this regard, Saraya have pushed forward the idea that Southeast Asia's cultural centres such as Funan, Dvaravati, and Sri Vijaya was not composed of one particular ethnicity, but rather a mixture of different tribal identities that merge to form a single cultural identity. (Dhida Saraya, 2009) Thus, antiquities in Southeast Asia are approached as either 'Art History not Archaeology', 'Archaeology of Artefacts not People', or 'History of Ethnics not Regional Culture'. Regional works such as those of Saraya and descriptions of regional political entity forms like those of Wolters is still rare and seldom applies into Suvarnabhumī timeframe. There is a failure to establish the roles, significance, and emergence of Southeast Asia as a whole in World History. Moreover, the arbitrary reference to Southeast Asia and Suvarnabhumī in various texts from different civilisations creates a general assumption in name reference. This aspect will be further explored in the section concerning literature analysis.

Maritime navigation and boat building knowledge and technology would have probably played a role in creating a foundation for social practice, economic development, and identity within the trade route. The Indian Ocean is a very difficult place to sail in antiquity, its conditions are different from those of both Egypt and the Mediterranean or Pacific Islands, in fact, to sail the seas ships had to be "good Weatherly sailors, fast, good carriers, deep-drafted and able to go to windward as well. In short they had to be real sailing ships". (Valliers, 1952: 56-57) It is worth noting that sailing technology in the Gulf of Siam and the South China Sea is easier than the open sea conditions in the Indian Ocean. The development of *junk* became essential to maritime trade by enlarging cargo holds, which increases trade capacity. The Indian Ocean could be dichotomised into two parts, Western Indian Ocean, and Eastern Indian Ocean. The Western Indian Ocean was linked greatly to trade activity between great civilisations like those of the Indus, Tigris, Euphrates, and Nile River. Inter-regional trade in the Eastern Indian Ocean was not accessible to the Classical Greek world prior to 1st century BCE when the Greek navigator Hippalus supposedly discovered the

monsoon wind.[5] The evidence of this discovery is still being disputed by scholars, knowledge of the monsoon winds and its mastery seemed to have predated Hippalus by several centuries. In fact, evidence of trade between the Classical world and the Indian Subcontinent existed no later than the 4th century BCE. The term '*Hypalus*' was used in the Hellenistic Era to refer to the wind; it was not until during the Roman Era when the term was changed to *Hippalus*. Knowledge exposure to the direct maritime trade route was probably introduced to the Classical civilisation by the Himyarite Kingdom in Ancient Yemen[6] or the Red Sea Kingdom of Aksum whom operated maritime trade with Southern Indian merchant guilds around the 1st century BCE. Hippalus, as historians argued, was probably credited more for his acquisition of the knowledge on the North-South nature of the Indian Subcontinent coastal line, which was prior understood to be only a flat Eastern shoreline. The use of Hippalus' direct route greatly contributed to the prosperity of trade contacts between the Roman province of Aegyptus (Egypt) and India from the 1st century BCE onwards. From Red Sea ports like Berenice large ships crossed the Indian Ocean to the Southern Indian Kingdoms like the Pandyas, Cholas and Cheras in present day Kerala and Tamil Nadu, whom were also known traders with early Southeast Asian states. The Southeast Asian landmass is a peninsula land bridge that protrudes from mainland Asia and the southern island archipelagos. Seafarer in the past would have relied on coastal navigation prior to deep sea navigation that was practiced greater in the 1st century CE. Yet, aside from speed, there would have been no obstacle to travelling between each coastal cities without the monsoon wind, so harbour hopping within the Bay of Bengal and the within the region could have likely started much earlier than the trade boom in the early Christian era.

Another conventional assumption problem in the study of ancient maritime trade is that seafaring activity necessarily implies maritime trade, this is similar to the

[5] There are various contentions on the accuracy of this claim, the *Periplus of* Erithrean Sea credits Hippalus with discovery of the direct maritime route to India via the Red Sea. However, *Pliny* wrote that he did not discover the route, but rather the monsoon wind, which was also referred to in Ancient Greek as 'Hippalus'.

[6] The Himyarite Kingdom was the dominant polity in Arabia until 525 AD that based its economy on agriculture, and foreign. For many years, the kingdom was also the major intermediary linking East Africa, the Indian Subcontinent and the Mediterranean world.

assumption that trade emerged as a result of the surplus generated by agrarian expansion. Furthermore, assumptions are also made that "trade is a benefit of advance civilisation" rather than a body of civilisation in itself. Perhaps the best example of such analysis is made by (Kearney, 2004), "...nature dictated where trade would first spark the rise of important civilisation...drier climates spurred irrigation with a concomitant advanced social organisation supportive of greater trade along major river systems". The former part of the analysis, is base on the idea of open market benefits, where the culture should be able to maximise its utility by trading with another entity; hence, exploiting its comparative advantages. Although trade has much attributed to the accumulation of capital and finance in civilisation, it might not only be a doctrinal component to rise of important civilisations nor could be used to judge the advancement of such civilisation. We need not look far for example of civilisation which rose to prominence without trade as a key "spark", such as the more isolated civilisation like the Incas of the Andes Mountains or the earlier Mongol civilisation. On the contrary, the presence of trade as key spark to the civilisation's development is rather a characteristic that shows the nature of the particular culture or civilisation. Cultures that rise to prominence from trade are more isolationists in its social, political, and religious development, than those open to trade like those of the Indic cultures where traces of Greek, Central Asian, Persian, and Arabian cultures can be seen assimilated into local culture and identity. Furthermore, the emphasis on trade as an indicator of civilisation development creates limitations towards the dynamics of cultural identity development that roots the core of civilisation. It bounds analysis on a yard-stick of civilisation which assesses cultural advancement and identity on production capacity, access to trade, and knowledge to pursue trade. The latter part of the analysis links the role of agrarian development with river trade and geographical locations. This analysis does not account for growth of advance culture in locations where goods might be scarce, such as the Pacific Islands that led to the creation of highly advance structures like Nan Madol in the early Christian era, or even the sophisticated cultures of the island Pre-Columbian civilisations that engineered their development on small scale petty, but frequent trade rather than agrarian development. As a result, these civilisations relied on trade as a

necessity for the creation of civilisation, rather than the general assumption of "self-sufficient capacity" that are usually placed on every civilisation in antiquity. Although organised agrarian production capacity may give a civilisation a competitive edge, it is not always a leading factor towards civilisation development in every civilisation. Analysing these perspectives from a Southeast Asian point of view will require an understanding of geopolitical and cultural identities that will indicate a "common rational choice" that people in the past will take to survive and progress as a culture. It is certain that Southeast Asia's own geographical location opens it to the identity of "open trade", which means it is susceptible to foreign influences in its civilisation identity. Yet, there seems to be trade within Southeast Asia itself, including maritime trade, which have existed prior to the surge in external trade. These evidences can be seen in the maritime activities of the Dong Son and Sa Huynh cultures, which spanned across the Southeast Asian mainland and island archipelagos. (Calò, 2009) This aspect will be later explored in this thesis.

The concentration given to studies with external trading partners like the Indian Subcontinent or China, even the reference to Southeast Asia as Suvarnabhumī, has fed to the perspective that local Southeast Asian trading efforts were minimal since it was foreign demand for luxuries that triggered large scale trade. The idea that growth to early Southeast Asian urban settlements into large maritime trading empire like Sri Vijaya (Wolters, 1967) owes its success to commerce with more advance trading partners in the Indian Subcontinent and China resulted in a series of assumption that left local development underexplored for several decades. In fact, it is generally assumed that Southeast Asia may have developed trade but failed to developed major urban centres –a fact yet to be roundly refuted with Archaeological evidences and historical analysis. Perhaps a key may lie in the reference to the vast riches of Suvarnabhumī and Suvarṇadvīpa, which are associated with Southeast Asia, if these locations were as to exist in specifics and were the only sole centres in the region. Retrospectively looking, the nature of Southeast Asia or even the lands east from the Ganges like Suvarnabhumī and Suvarṇadvīpa as referred to in Indic literatures were

often credited for wealth in the Eastern Indian Ocean trade. For advance ports like Tāramlipta to arise and becomes prosperous[7] with acknowledge source of wealth from trade with the cities of Suvarnabhumī, it is perhaps reciprocally almost impossible for there to be no development on the side of Suvarnabhumī. Let alone, the character of open trade between the two regions that emerged by the 1st century BCE, shows that trade probably define the characteristics of both civilisation. As far as Tāramlipta is concerned, it was one of the largest port cities of antiquity, and played many significant roles in history including an embarkation port for famous missions such as Kalakacharya's voyage to Suvarṇadvīpa referred to in the Parsvanatha –Jaina text. Economically, Tāramlipta's growth would not have been possible without a constant supply source whereby there are export production for the luxury goods that are traded with the Indian Subcontinent and the Western world. We know from ancient records that trading ships sought textiles, precious metals, pearls, tortoise shells, spices, and other luxury goods from the Eastern Indian Ocean.

Maritime trade has been the centre of study for seafaring activity in the Indian Ocean, much of the studies done regarding the roles of the Indian subcontinent in the trading network has been directed towards trading networks, which are accepted as having proliferated during certain historical periods. Consequently, much of early South and Southeast Asia trade network has not been investigated, there are few studies devoted to South and Southeast Asian contacts in the recent years. (De Casparis, 1983) (Hall, 1985) (Ray, 1995) Most works done to investigate such maritime contacts scope its investigation after the 5th century BCE. (Dhida Saraya, 2011) In retrospect, the lack of focus on localised trading communities also left out cultural and ethnographic integration between the trading communities in Southeast Asia during antiquity, let alone, the entire picture of a trade route during the third to second millennia BCE which ran from Egypt to Thailand. (Ray, 1995: 82) Sometime between 6000 and 1500 BCE, the sea level around mainland Southeast Asia fluctuated within a few metres of its present position; as a result, a series of beaches were formed comprising marine and

[7] Ibid

brackish-water clays. Archaeological sites are found scattered throughout the coastal line from the Gulf of Thailand, in sites like Non Nok Tha and Kok Phanom Di, to Southern Thailand and Sumatra. These sites show signs of agrarian and seafaring activities as well as small scale trade, Kok Phanom Di never developed throughout the centuries as it was plagued diseases. (Ray, 2003) There are several implications concerning the rise of sea level up until 1500 BCE and the fluctuating sea levels, as well as the nature of settlements later found around the newly established sea coast. Firstly, the changes in sea levels directly affects archaeological researches in terms of evidences on past civilisations, if the sea level became higher, then the sites would be under water, while receding shore lines also makes it more difficult to analyse the habitation characteristics of that particular culture. Secondly, there is a Palaeolithic gap in the development of Southeast Asian civilisation; there are plenty of missing evidences sunken into the sea concerning early Southeast Asian history, which may also incorporate seafaring knowledge. However, if settlements found in early Southeast Asian trading communities were as small as depicted by the archaeological evidences like those of Kok Phanom Di, then what caused the description of Southeast Asia as "Suvarnabhumī" or "Suvarṇadvīpa"? The active nature of Southeast Asian settlements and their maritime based culture is arguably one of the oldest in Asia. One only needs to look at the genetic diaspora of Austronesians to confirm such evidences. Furthermore, the earliest K'un lun junks suggested Southeast Asian inspirations, these junks are described as 'enormous ships sewed together like those described later in the Indian Ocean; and that the existence of [Chinese] junks for the high seas is thus not probably until the 9th century, nor certain until the 12th century". Many Chinese accounts, particularly on Funan, are holds unanimous opinion that in order to travel beyond the coast of North and Central Vietnam, travellers must employ Southeast Asian ships. (Vickery, 2003-2004) To understand this, it is important to note the valuable commodities during the pre-industrial worlds, which defined ancient Southeast Asia's relations to the world. At this point we can infer that these identities probably harbour a more holistic picture than simply "trading emporium" or "prehistoric settlements". Economics tell us that trade in advance produce, specifically commodities that are not

forest gathered, often involves a complex social network and logistical workings. Although we cannot presuppose that the assumptions of modern economics supply-chain production are definitively applied in antiquity we know that the activity itself is a form of complex organisation that defines a component of the incumbent's identity.

Suvarnabhumī and its Various Manifestations in Literatures

The term "Land of Gold" could be found across different ancient accounts. The reference to the lands towards the east of the Ganges and west of the China seem to be that of wealth and adventures –a place of mystical unknowns and dangerous entities. However, the name and the references are under supported by archaeological evidences, that even establishing a clear link to an actual geographic location becomes a daunting task. Before going on to analyse the identity of Suvarnabhumī and Suvarṇadvīpa, it is perhaps best to first explore the literature reference and the various terminologies used to apply to Southeast Asia in early antiquity. Indic merchants regard Suvarnabhumī as a land enriched with sources of wealth and large commercial enterprises. (Ray, 1946) The Mon-Khmers traditions described it as a land where there is a vast stretch of golden paddy fields. The Mon chronicles, Jataka Attakatha III, tells of a region endowed with golden creeks, golden mansions and golden earth and a fertile land yielding a good harvest of crops. Like all myths, there must have been a source of inspiration that created a constant picture of wealth in affiliation to Suvarnabhumī. On the other hand, Chinese chronologies would often record more than particular trade items or the "golden image" that is used to define Suvarnabhumī. Even though the names cannot be strictly equivocated, descriptions of the community, port cities, and political structures of early states like Chin Lin and P'an P'an is crucial to understanding how trade is politically controlled in the region prior to the rise of strong cultural centres. Such is the same with classical literatures, especially the *Geographia* map that records trading networks of cities and emporia within Southeast Asia.

Indic Literatures

Rāmayana

The Rāmayana was written during the 3rd century BC, although suggested remains indicate that the story might be older.8 It is considered one of the holy writings of India aside from the Rig Veda and the Mahabharata, which are considered Hindu civilization chronicles. The Rāmayana occasionally mentions "Suvarnadvīpa" or Golden Peninsula/Island and "Suvarnabhumī" or Golden Land as a geographical location containing wealth and establishment (Wheatley, 1961). Another interesting references to Suvarnabhumī, is the mentioning of Yavadvīpa in the events of Rama's search for Sīta. In the text, Rama and Hanuman went to Sugriva, King of the Vanaras, for his assistant in searching for Sīta; thus, Sugriva gave instructions for the Vanaras to search across the lands of Jambhudvīpa for Sīta. The instruction on the quest was divided into two parts, the quest within Bhārata9, and the lands outside Bhārata. Among the lands outside Bhārata towards the east, Sugriva mentioned:

"And you must go to those islands which can be reached from the mountains, by swimming or by boat: to Yavadvīpa rich in jewel, splendid with its seven kingdoms and to Suvarnarūpyaka ornamented with gold mines."

From the passage it could be derive that the geographical classification of Yavadvīpa as a separate island/peninsular from the Suvarnarūpyaka[10], and is rich with minerals. It is worth noting that at the time when the text was written, references were made to these lands as containing "seven kingdoms". Since the establishments within India were of advance stage by the time the texts were written, on relative terms Sugriva's description of these kingdoms could be use to infer to some form of administrative and city like settlement within Yavadvīpa and Suvarnarūpyaka. In addition to mentioning these two lands, Sugriva also told the Vanaras that further

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[8] According to Vedic tradition the Rig Veda age is considered around 6th to 5th century BCE, while the events of the Mahabharata and Ramayana times follows correspondingly around 500 BCE.

[9] The term Bhārata is used to refer to India or the land where the Mahabhārata kingdoms are located, areas like Greece and Kingdoms outside the Vedic tradition falls out of the Bhārata areas.

[10] Suvarnarūpyaka: (Sanskrit) for "land/island abundant in gold" or "land/island abounding of many gold and silver"

toward the east of these islands are other islands with dense forest that contains tribes and ferocious beings with dark complexion and behaves like Asuras[11], the Vanaras should take caution if they were to enter into their territories. It is interesting to note that beyond Sumatra and Java is the Irian Jaya culture, which have existed since pre-historic time. Some of the tribes in Irian Jaya are cannibalistic. However, it is not confirmed that Sugriva's description falls directly towards the modern day Indonesia or tribal areas.

Several authors had refuted the claims of Southeast Asia as the location of Suvarnabhumī stating that it could potentially be references to Sri Lanka or the Southern part of India. However, Sri Lanka was referred to by two names since ancient times: Lanka, and Sinhala. As for South India, there would be no need go across the sea towards the east, especially if the location where the texts were written was located somewhere in the coast of West Bengal and beyond the Ganges. Furthermore, the Kingdoms mentioned within the Māhābhārata extend well into the modern Northern Burmese region. Thus, disputed claims are placed between Insular Southeast Asia or the Island Archipelago, Tenasserim Coast in Myanmar, and Thailand. Yet, if these claims are based on "area" references across the Sea to the East of India, then it is likely that it has no specific connotations, but rather the region as a whole.

Arthasastra of Kautilya

Another key description about Suvarnabhumī can be found in the Arthasastra of Kautilya. The Arthasastra was written sometime around 350–283 BCE by a scholar who is often associated with Chānakya who was also the Prime Minister under Chandragupta Mauryan[12]. Counter evidences argue that the common descriptions associated with Smrti[13] would push the dates back to around 2nd century BCE. Academics, however, agreed that Kautilya was a scholar from Takshashila, his work the Arthasastra is a

[11] A type of Vedic race that is associated with monsters and demons

[12] The connectivity between the Arthasastra and the Mauryan court is still questionable, the recent works of Patrick Olivelle, Janice Leoshko, and Himanshu Prabha Ray presents an strong analysis towards the lack of evidence to support the Arthasastra being the work of a Mauryan scholar.

[13] The word "Smrti" literally translates to "that which is remembered," a specific of body of Hindu text which contains Hindu customary laws.

composition of Ancient Hindu treaties on state craft. The literature contains facts and recommendations on issues like politics, economics, and military strategies –a hand book of worldly success. (Shamasastry, 1915) The description on "trade and commerce" contains a detailed record of imports and their origins, particularly about a Brahmin Sanka, who sailed from Varanasi to Suvarnabhumī (Tripathy, 2007). Amongst the imported goods to the Mauryan court from Suvarnabhumī and Suvarnakudya, which is in the same direction, are three main goods which are considered precious within the treasury account:

Firstly, the agaru, a yellow greasy scented wood similar to sandal wood. This good is foreign to the Indian Sub-continent and only exist in Southeast Asia. However, in the Arthasastra, the location of the good is labelled as Lanka and Suvarnakudya. Lanka is the known modern Sri Lanka, while the location for Suvarnakudya is not yet settled. However, the passage that describes the specific agaru, the Kāleyaka, in the Arthasastra refers to the actual land of Suvarnabhumī as follow:

"Kāleyaka, which is a product of Svarna-bhumi, gold-producing land, is yellow and greasy"

Thus, it could be incurred from the passage that the Agaru and gold are types of produce brought from Suvarnabhumī by Indian traders to the Mauryan court.

Another produce of Suvarnabhumī is textiles, in the Arthasastra, textiles were categorised into different levels. Among the finest produce is the silken texture fabric, which is a product of the country Suvarnakudya, it is described as follow:

"…as red as the sun, as soft as the surface of the gem, woven while the threads are very wet, and of uniform (chaturasra) or mixed texture (vyamisravāna)"

Both South Indian and Southeast Asian textiles are known to contain the chaturasra or square uniform pattern. Textile trade was highly profitable in Ancient times; most textiles are referred to by their origin, much like the stated dulaka from Suvarnakudya.

It is worth noting that disputing scholars believe that Suvarnakudya could alternatively mean Kāmarupa or Karṇasuvarṇa in the Bay of Bengal.[14] (Chattopadhyaya, 1987) However, it is mostly agreed among scholars that Suvarnakudya is a reference to a city somewhere near the Eastern part of the Bay of Bengal towards southern Myanmar, especially when citing from ancient Chinese records by K'ang T'ai. (Petech, 1950), similar views are supported by other scholars. (Thanit Yu-pho, 1967) (Glover, 2006) (Wheatley, 1961) If Suvarnakudya was located in the Ganga River Delta as proposed by Chattopadhyaya, who believed that it could have been Kāmarupa or Karṇasuvarṇa then it would challenge historical evidences like Ptolemy's map and the Mahabharata, which mentioned these two cities as a different city to Suvarnabhumī or Suvarnakudya in its text.[15]

In the Arthasastra, the term Suvarnakudya country is often referred connectively with Suvarnabhumī; thus, it is either a trading port of Suvarnabhumī or potentially a location in Suvarnabhumī. Ancient Indic literature often refers to trade network in terms of twin cities. For example, the Arthasastra sources Mauryan trade destination as follow, "Hārahūra and Kapiśa, Kāmboja and Āratta, Bāhlika and Vanāya, Tāmraparnī and Pāndyakavātaka, Suvarnakudya and Suvarnabhumī, Cīna and Nepāla". This is also true in Pānini's Astādhayāyī, which contains references to trade and commerce. Thus, from the Arthasastra text, it could be inferred that Suvarnabhumī was a producer of gold, scented wood, and textiles. There are certainly evidences of trading routes being established between the Suvarnabhumī region and India Subcontinent. Coincidently, this would fall under the fact that trade between Southeast Asia and South Asia was boosted after around 325 BCE when Alexander of Macedon invaded the Indian subcontinent and there were higher numbers of invaders of the White Hun tribes from

[14] Chattopadhyaya argues that the red cotton plant common to Bengal is noted for being one of the best cotton in India. The Nowgong copper plate grant of Balavarman of the 10th century A.D refers to Suvarnavata-vrksa and Salmali-vrksa red cotton silk tress, "Bombaz Malibicum".

[15] Kāmarupa is mentioned in the Mahabharata as *Pragjyotisha* , while Ptolemy's map marked it as *Kirrhadia*. It is the first capital of Assam, dating back to approximately 3rd century BCE. Karṇasuvarṇa (alt. Karnasubana) is a trade metropolis developed around 7th century AD during the decline of Tāramlipta, there are evidences of its trade with Takuapa in the Chaiya inscriptions talking about a sea captain who sailed from Rakta-mrittikā, now identified within Chiruti region, Bangladesh.

Central Asia under I-Tsing's accounts, which made trade with the Roman Empire more difficult. Thus, Indian traders were relocating their source of gold trade from the West to East. Such is supported by the surge of trade references in Indic literature referring to Suvarnabhumī as a trading location. This is seen in many Puranas, which were written around 5th to 3rd century BCE or possibly older[16], such as the Markandeya Purana that mentions a voyage to the Suvarnabhumī, "land of the golden mountain". Sylvainn Levy, an scholar in Hindu civilisation, mentioned that the Ramayana, Mahabharata, Mahaniddesa, and Brihat-Katha shows that Burma and Malayan Peninsula products were known to Indian merchants and sailors, as well as some of its ports such as Suvarnakudya, Suvarnabhumī, Takkola, Tamlin and Javām from at least first century A.D. Other ancient texts, such as the Kathakosa tells the story of Nagadutta who went to Suvarnabhumī with five hundred ships to conduct a profitable trade.

Early Buddhist Texts

Early Buddhist texts are easier to date than the Indic texts, most ranges from accounts of conversation and events during the time of the Buddha during the Buddhist (Sangha) Councils, the least distorted of the texts are probably recordings from the First, Second, and Third Buddhists Council. Other more ambiguously dated texts are the Jatakas or stories of the Buddha's past lives which also contains descriptions of voyages to Suvarnabhumī. The Mahākarma Vibhańga mentions a trader who often sailed to Suvarnabhumī from Mahakosali, Bharukachchha (Broach), and Tāramlipta, a city once situated in Midnapore District, West Bengal. It also indicated that a merchant named Gavampati was among the first Buddhist sailors to Suvarnabhumī during the time of the Buddha. This is quite a controversial claim, given that Buddhism was not suppose to have entered Suvarnabhumī during the time of the Buddha, but rather later on when Ashoka sent his envoys to the Suvarnabhumī. However, it would coincide with many local traditions and belief which dates Buddhist exposure in Southeast Asia back to the

[16] The Matysa Purana, which also contained description on trade with *Suvarnabhumī,* contains a list of Kings that dates back to 19th century BCE. Given that most texts are transferred through the oral tradition or written on palm leaf, it is difficult to establish a set date on the Indic history.

time of the Buddha. Mahāniddesa (1st cen A.D)[17], pāli scripture mentioning a sailor who trades in the Indian Ocean. The Milinda-pañha, which dates back to around 100 BCE, is a Theravada Text from Kuddhaka Nikaya, containing a series of dialogues between King Mernander I (Pali: Milinda), who reigned 2nd Century BC, and the monk Nāgasena. In verse nine, references were made to journeys to Suvarnabhumī by merchants who sailed the deep sea.

Other sources from later Buddhist literatures also contain accounts of Suvarnabhumī, such as the Māhākarma Vibhanga mentions traders to Suvarnabhumī and travels of Gavampati Thera, an Arahanta during the Buddha's lifetime, to Suvarnabhumī. This variation on the description of Gavampati is an interesting account, in a record of his own history; Gavampati was a trader before he met the Buddha. This could mean that Buddhism would have to be pre-introduced to Suvarnabhumī before the actual arrival of Sona and Uttara that were recorded in the Sinhalese Chronicles.

The Sinhalese Chronicles are separated into two types: the Dīpavamsa and the Māhāvamsa. The Dīpavamsa is the older version of the latter, it was written sometime during the 3rd to 4th century A.D, and held accounts of Ashoka's Buddhist envoy to Suvarnabhumī, Sōna and Uttara. The Māhāvamsa, which was completed sometime around 4th to 6th century AD after the Third Buddhist Council. Local inscriptions suggest that by the 5th century AD Theravada Buddhism was already present in Southeast Asia in Dvaravati (Dhida Saraya, 1999) and in Lower Burma. Chinese sources in 240 AD mentioned the Buddhist Kingdom of Lin-Yang, which Elizabeth Moore has identified as Ancient Pyu, Kingdom of Beikthano. Moreover, Paul Wheatley found that earlier sites in Nāgārjunakonda, Beikthano shows no Indic identity, which suggest formations of city-like settlements before Indic cultural presence as far back as early 3rd Century A.D or possibly earlier. (Wheatley, 1983)

[17] Dating for the origin of this text is also ambiguous.

Chinese Literature

There are no definitive conclusions as to when the Chinese began commuting with Southeast Asia, but the oldest documents concerning coastal cities in Southeast Asia originates back to the Han Chinese Kingdom, and followed by scattered records during the Three Kingdoms period. In fact, evidence of trade and diplomatic relations between China and the Asia Pacific, as well as South Asia could be traced back even further if we were to consider religious missionaries such as monks who were known to be the diplomats of Asia during antiquity.

The context of Chinese reference to Southeast Asia is argued by categorising the Chinese as "Han Chinese Culture", rather than other Chinese cultural groups such as the cultural groups in the Southern China that probably enjoyed a degree of contact with Southeast Asia and South Asia prior to the Han Chinese. The "Shui Chin Chu" (Water Chronicles) by K'ang T'ai of the Southern Wu Kingdom (222-280 BCE) recorded an embassy mission from the King of Tan Mei to the "Yellow Gate" (Chinese Court) in 3rd century CE. Tan-Mei is believed by contemporary scholars to be the famous port city of Tāramlipta. The Shui Chin Chu also talks of "Ssŭ-ho t'iao" (Ceylon), which was probably a transcription from Sīhadu (Prakit) and Simhadvīpa (Sanskrit). In regards to references to Southeast Asia, it was treated as rest stops along the way to the Chinese court, the island of Java (Ferrand, 1916) was portrayed in connection with the Mountains of Fires and the Javanese fruit known maja, and accounts of a land known as Chűli was also cited. Chűli is identified as being identical with T'ou-chu-li of Liang Siu, and respectively Ptolemy's Takkola emporium that scholars believe to be Takuapa. The records of K'ang T'ai noted that:

"Coming out of Chűli one enters a great bay. Travelling straight northwest for more than a year one reaches the mouth of the river of India, which is called the river Ganges. At the mouth of the river is a kingdom called Tan-Mei."

The port of Tan Mei trade route conducted with Kanadvīpa and Ganadvīpa. The identity of Ganadvīpa, which was identified as Malayan by (Wheatley, 1961: 52-55) is

still an ongoing debate. Scholars like (Patech, 1950) believes that in the Ramayana, the land was equivalent to Suvarnarupyaka or Suvarnakudya of Ksemeudra.

Records by the Han court in 25-220 CE shows recognition and trade with the southern lands of Shan, Yediao, Dian Zhu (Northern India), and Dajin (Eastern Roman Empire). Historians would identify Shan as the current Shan territory in Myanmar, while Yediao was probably a reference to Lanka or Yavadvīpa. The Hou Han Shu referred to a series of tributes sent to the Han court by the respective kingdoms, with goods arriving from the Andun Kingdom of Dajin in 161 CE, which coincided with the reign of the Emperor Marcus Aurelius Antonius. Although the authenticity of such record are still contended because of the tribunal goods delivered to the Han court included ivory, rhinoceros tusks, and tortoise shells, which were considered low in value by modern historians considering the relatively size and power of the Eastern Roman Empire, it is still a record that shows the existence of contact. (Phasuk Indraravuth, 2007)

In terms of commodity value, the classification of exotic goods such as ivory, rhinoceros tusks, and tortoise shells as low value is contentious. Firstly, even though these commodities may be less valuable than gemstones or gold as analysed by Indravuth; nevertheless they are valuable luxury products to the Eastern Roman Empire. In fact, the price of such "low value goods" could be contentious to several gemstones and gold. One only has to look at the relative price of spice, a modern low value commodity, and gold in antiquity to only find that wars are waged between nations for both goods. While gemstones and gold maybe found locally or nearer to Constantinople, several other products are rare and cost high venture investments. For the Romans, tortoise shells and ivory (depending on the kinds) were rare and expensive treasures of the orient that were used in jewellery making and decorations among elites, a tribute probably worthy of a foreign court –if the Dajin of the Hans were the indeed the Eastern Roman Empire. Secondly, the increase of wealth in port cities that traded such commodity during the early Christian era likes Tāramlipta, Broach, and Berenike suggests that key commodities from the Eastern Indian Ocean such as spice, tortoise shells, pearls, and ivory were probably a high value commodity in antiquity.

Hence, the reference to the tribute from Dajin to the Han court does not only suggest trade relations between the Hans and Romans, but also the significance of Eastern Indian Ocean, which includes Southeast Asia, goods in the Southern Silk Route.

In addition to the accounts on rivers and lands, K'ang T'ai also mentioned a kingdom named Tien Sun, which lies somewhere in the Malay Peninsula. Tein Sun's description places it somewhere along the trade route between Funan and the Indian peninsula. It was described as a resting place for travellers from the east and west, as well as being a trading emporium, it was said that there was nothing in the world that could not be found at Tien Sun. The Tai Ping You Lan chronicle (977-983 CE) stated that Tien Sun was a city that was taken over by Funan, and contained 500 "hu" households, two "fodu" households, as well as thousands of Brahmins. The French sinologist, Paul Pelliot hypothesised that 'hu' probably meant 'merchants', while 'fodu' was probably a reference to Buddhist.

Perhaps the closest Chinese reference to Suvarnabhumī was the mentioning of a country called "Chin Lin", the Tai Ping Yuou Lan describes Chin Lin as a kingdom situated 2000 Li or 1289.3 kilometres from Funan, the kingdom holds a large silver mine and a sizable population. Chin Lin citizens demonstrate a strong connection with elephants that they use for both transportation and ivory harvest. The record stated that King Fah Man or Fah Shih Man "Sri Man" led an expedition to expand the Funan influences and territories across 6000 Li, along the way consuming kingdoms such as Ch'u-tu K'un, Chiu-chi, and Tien sun, but stopped before he successfully annexed Chin Lin. Pelliot translates that southwards 3000 Li from Chin-Lin is the country Tu-k'un and Chűli, which he believes is a mispronunciation of Chiu-chi. Translation problem as proposed by Pelliot maybe contradictory to the fact that Chin-Lin supposedly lies closer to Funan than Chűli; thus, a misread would have likely been improbable –if the distances were accurately and cohesively recorded throughout ancient Chinese records Chűli, commonly identified with Talaitakkolam or Takuapa. Another interesting city is the record of Tun-hsűn, a city 3000 li towards the southern frontier of Funan. It was said to be a place where merchants gathered every day, and traded, "more than 10,000

rare objects, precious merchandise there is nothing that is not found there." Tun-hsűn is probably best interpreted as an area with five kingdoms[18], which were vassals to Funan; it is situated by the coast that led to its wealth prominence. According to the record, it was not possible to directly cross the "immense sea"; as a result, Tun-hsűn became a large resting stop to the west from Funan. It was known as a port of transhipment. The people of Tun-hsűn were described as keen Brahmin practitioners, who mingled and married with Brahmans. The populous were keen reader of sacred texts, and offered flower and white vase perfumes to the gods, in times of sickness; they would vow to be buried by the birds. Other forms of burial include cremation and throwing ashes into the sea. Tun-hsűn was said to be a producer of many kinds of fragrant flowers, which were famous perfumery products in antiquity. (Briggs, 1962) Perhaps the most interesting description was that of religious rites involving funerals, sky burial[19] is an indication of religious traditions that was probably transferred to Southeast Asia through trade with Central Asia and Mahayana spheres of Buddhism.

The record of Funan by K'ang T'ai's mission is worth noting for reference on constructing a picture of Early Southeast Asia. The records include the legend of a foreign Brahman named Hun Tien who managed to subdue a local queen, Ye-lieou, and married her. Ancient Chinese text had mentioned a very old society called Sou-Chen sending their ambassadors to the court of China since the twelve century BC. If the references are indeed a reference to Southeast Asian settlements, then Queen Ye-lieou was probably a contemporary queen of Sou-Chen or Kauk Tloak and was controlling the sea route of the region in the business of escorting merchant ships.

[18] Literal translation indicated five kings, meaning it could have either been a domain of five separate political-cultural groups, or there was some sought of oligarchy base governance. The latter is not the likely nature of Southeast Asian political economic history; thus, it is better interpreted as probably a union of chiefdoms or feudal like entity with a single cultural branding.

[19] Despite its known affiliation to Tibetan culture and Vajrayana Buddhism, evidence of sky burial in Tibet did not become prominent until 12th century CE. This could suggest a different or localised source for the sky burial tradition in Southeast Asia or simply that the practice was done elsewhere around Central Asia, given the evidences of trade with Central Asia in early antiquity. There is also a possibility of Zoroastrian influence to the tradition.

Although Chinese literature did not offer a clear link to the Indic Suvarnabhumī reference, its detailed account on various settlements and its trading nature with Funan, a culture with proven archaeological evidence, provided a detailed insight into activities in early Southeast Asia and its role in Trade. From Chinese texts, we can infer that there were arguably an extensive and intricate network of goods producing settlement, transhipment port, as well as port of embarkation and destination within Southeast Asia. In fact, the identity of these settlements, not necessary the emergence probably revolves highly around trading activities. Cultural flexibility suggested by adaptation and incorporation such as Brahmin texts and religious practitioners, emphasised that local authorities prioritised diversity or the welfare that came from trade and were willing to adapt to accommodate traders from different cultures.

As far as the etymological consistency for the names is concerned, the Chinese names given to Southeast Asian geographic location seems to derive itself from either the Chinese interpretation of local sound, this would mean that the names should be fragmented or does not possess any meanings in the Han Chinese language. Yet, within the Shui-Ching-Chu (Commentary on the Water Classics) and other Han associated text, names seems to derive itself ambiguously between the sounds in the local name, and the meaning of the local name. The Chinese annals recorded the names of many city-state (or settlements), but in Southeast Asia, several names were identified and some of major states are still dubious. So many historians have been discussing the ancient Southeast Asian history without correct identification of many states such as Shih-li-fo-shi, Kan-tuo-li, Langkasuka, Chi-tu, Lo-yue and Ho-lo-tan. For example, the locations of Shih-li-fo-shi have been ambiguous between Palembang and Chaiya at the Bay of Bandon in Thailand. Langkasuka was not situated near Pattani but rather Nakhon Si Thammarat. Chi-tu is supposed to be in the south of Langkasuka but it is not identified yet. If Langkasuka was identified Pattani, Chi-tu would be a stray-state in terms of its location. The main port on the east coast of Chi-tu might be Songkhla and their capital was without doubt Kedah. It is likely that Chi-tu was probably the successor to Kan-tuo-li, which was Kandari and modern Kedah, but many historians agree, including Coedès

that this was in Sumatra. Ho-lo-tan (or Kha-la-tan) is believed by many historians to be situated in Java. Yet Buddhism was not as developed in Java in the fifth century. Thus, it is more likely that Kelantan is somewhere on the eastern coast of Malaysia. Tan-tan, is not known, but it was probably Kelantan. Lo-yueh cannot be Johore, but at the north end of the Malay Peninsula where transhipment was made, such a place could have been Ratchaburi in Thailand. There are only a few numbers of states that were firmly identified by archaeology. These include, Kha-cha, which translate into is Kedah. Pan-pan that is a state at the Bay of 'Ban Don' in Thailand and its capital is Chaiya. (Suzuki, 2011) Malayu (Mulayu) is the estuary of Jambim, Dian-sun, being the Tenasserim coastal line, and Shepo is Java, although the concept of 'Java' was ambiguous before the eleventh century in the Chinese text.

Comparison of Chinese and Indic Literatures

If the Chinese texts are to be matched with Indic literatures that are more ambiguous in terms of specific locations, especially early literatures that prefers to refer to the locations as Suvarnabhumī or Suvarṇadvīpa, it would be difficult to directly assert that one equals another. Perhaps the best solution would be to understand the reference terms and the nature of the culture providing the term. With the exception of the nations, tribes, and cities within Bharat that were referred to in the Bhagavad-Gita and the Rg Veda, lands outside of the reference were probably less familiar in association to the Indic cultures within the Indian Peninsula. Similar to the Chinese, the view on the world derives from the concept of cultural sphere; where by the original culture was the centre of the world (no matter if it's Indic or Chinese). Hence, the models in which they refer to remote cultures are more likely to be similar to the ones they applied to foreign cultures in closer proximity.

It is worth nothing that there might be a tendency to link similar cultural settlements or trade networks together, as well as assuming that a culture of first contact on the foreign land represents the culture of the continent. We only need to look at latter encounters of the Europeans with the Indian subcontinent to understand this "categorical lumping" phenomena. Thus, if we were to interpret the differences

between the Chinese and the Indic civilisation's reference to settlements in Southeast Asia we can derive a model which suggested that the Chinese might have more exposure to the variety of civilisations and settlements than the Indian traders. This point may be contentious base on the dating of the records, since the Indian records are older, but nevertheless, it is important to recognise that Indic traders were probably more familiar with coastal line civilisation than inland civilisations. With the exception of activities in the Arakan and Tenasserim coastal line settlements, which probably enjoyed a cultural spill over from trade with the Ganges civilisations, human activity elsewhere is probably as equally foreign as salvage to the Indic traders –especially the western island archipelagos. This is also further propelled by the nature in which information are transferred in the Indic civilisation as compared to the Chinese civilisation. The Indic civilisation is highly based on oratory tradition; in fact most of its core traditions and mythologies such as the Rg Veda and the Bhagavad-Gita were not recorded until the 5th century BCE, despite its much older timeline reference. On the contrary, Chinese tradition has been highly centric on recording, this also includes travel accounts. Moreover, intra-trade network and awareness of different regional groups have been in possession of Chinese scholars since the Shang dynasty. The Tai and the Miao people of the South, as well and Nan Zhao kingdoms were in constant trade with Northern Mainland Southeast Asia through river commerce. In fact, the prosperity of Arakan was greatly linked to its silver trade with Nan Zhao via the Irrawaddy River; this might have earned it the "Agrye" (Land of Silver) reference name in Greek accounts. Hence, differences is cultural civilisations are more likely to be observed by Chinese travellers as compared to Indian travellers. Thus, Chinese records tend to yield a less generalised picture of the area.

One contentious location involves the city of Chin-Lin, which translates into "golden frontier", this could have been the same location implied by the Indic records of either Suvarnabhumī or Suvarnakudya, or it could have been an entirely different city. Nevertheless, immense wealth is associated with the location, much like the Indic record. However, if we are to look at a broader economic picture base on archaeological

evidences and locations found throughout Southeast Asia, as well as its cultural-economic tie with one another, it is safe to infer that whatever and wherever the "golden land" is in specific, it probably attained its wealth through its strategic setting among other equally wealthy and prosperous trading network. The Han Chinese recorded these trading cultures in detailed, while Indic literature prefers to cite it as generalised cultural spheres, which would coincide with its literary traditions. This account would be then transferred to the Greeks and Roman whom traded extensively with the Western and Eastern Indian Ocean.

Classical Literatures

Trade network began expanding further east from Greek during 513 BCE when Darius of Persia conquered the Indus Valley, triggering greater knowledge of South Asia and the east. In 500 BCE Hecataeus of Miletus acknowledged the notion of a disk shaped earth, whereby Europe and Asia existed in similar size. This was followed by successive reports from Aristaeus, who believed that "the sundry people live far across Asia". (Suárez, 1999)Although there are extensive evidences of trade in the Indian Ocean between western/near eastern civilisations and Indic civilisation, the 3rd century BCE was perhaps the most significant era in terms of trade expansion in antiquity. The result of Alexander I of Macedonia invasion into South Asia and India (most likely North Western India) between 327-325 BCE, which was simultaneous to the white Huns invasion into the Indian subcontinent followed by the decline of Sangha order according to the Chinese travelling monk I-tsing. In the trip returning to Greek, Alexander divided his forces into three parts; the first headed back via land, the second was to survey the coastal line, and the last was to find means to cross the sea back to Alexandria. This followed by Hippalus navigational knowledge that was probably obtained from either Arab or Indian traders, allowed the Greeks and Romans to traversed the Sea to the Indian Ocean via the Red Sea, and opened a new trade route to the East.

Perhaps the oldest Classical reference to Southeast Asia is the geographical compendium known as *De Chrorographia* written by Pomponius Mela in 43 CE, which referred to "Chryse" (land of gold), "Argyre" (land of silver), and "Aurea Chersonese"

(golden peninsula). As discussed earlier in the historiography section, there are several Classical texts that mentioned lands that were supposedly in Southeast Asian, among them, there are three significant works that are worth mentioning. These works, including its reference names, probably stemmed from a transfer of information from Indic traders. A trait recognise in the meaning of the names described in the Greek accounts, which coincides with Indic literatures.

The *Periplus of the Erythrean Sea* is perhaps the most well-known records of maritime navigation coming from the Classical Era. The Erythrean Sea is a reference to the Red Sea and the Indian Ocean. Written by a Greco-Egyptian Merchant in the 1st century CE, it is the oldest maritime travel log discovered thus far. Even though the author himself never crossed beyond the Palk Strait, which would lead him into the Eastern Indian Ocean and the Bay of Bengal, his accounts contained details on every cities and trade route from Africa to India. In addition, the book also mentions Eastern Indian cities such as Kamara, Podouke, Sopatma, and Tāramlipta, describing them as transhipment harbours and trading emporium that conducted trade along the coastal shore and crosses the sea eastwards to Chryse. The account recites the following sea-faring route:

"After these the course turns toward the east again, and sailing with the ocean to the right and the shore remaining beyond to the left, Ganges comes into view, and near it the very last land toward the east, Chryse. There is a river near it called the Ganges, and it rises and falls in the same way as the Nile. On its bank is a market town which has the same name as the river, Ganges. Through this place are brought malabathrum and Gangetic spikenard and pearls, and muslins of the finest sorts, which are called Gangetic. It is said that there are gold mines near these places, and there is a gold coin which is called "caltis." And just opposite this river there is an island in the ocean, the last part of the inhabited world toward the east, under the rising sun itself; it is called Chryse; and it has the best tortoiseshell of all the places on the Erythraean Sea." (Schoff, 1912)

The second reference is *The Natural History of Pliny* by Pliny the Elder. Written in the first century CE, it mentions Chryse and Agrye as gold and silver rich location South of China. Pliny's work is probably the least detailed of the three major Classical work, aside from detailed accounts on the goods and the nature of the settlements, he seems to have mixed up the trading route from Central Asia and the Southern Silk Road that intersects each other at the Ganges. In addition, Pliny failed to recognise the geographical attribute of Southeast Asia that is situated on the maritime route between the Indian Subcontinent and China. Pliny's mistakes could have been due to his lack of firsthand experience on the trade route itself, relying much of his works on various accounts of sailors and merchants.

The most significant Classical literature work on Southeast Asia that was relevant up and used by seafarers up until the latter part of the 1600s was that of Claudius Ptolemy. His works included the most comprehensive maps and compilations of written accounts on the geography of the known world contemporary to his time.

Klaudios Ptolemaios, commonly known as Ptolemy, was a distinguished Mathematician, Musician, Astronomer, and Geographer, he was considered to be one of the most influential men of science in antiquity period. Nothing much is known about his personal life, but the fact that he lived during the heights of Alexandria during the middle of the 2nd century AD, during the reign of Antoninus Pius.

The Geographia

The *Geographia* is a sequel to his great work on Astronomy, *Almagest,* which served as a treatise on subjects like that are strictly Mathematical and Cosmological, as well as charting of the functions of the heavenly bodies. Hence, the *Geographia* is not only formed to describe places, but also to correct and reform the map of the world in accordance with the increased knowledge which has been acquired of distant countries and with improved state of science. In other words, the *Geographia* was the most updated and precise atlas produced during antiquities at the time. This makes the *Geographia* one of the most important classical accounts of the ancient world's geography. More importantly, the map and description also contains a landmass that

can be identified as Southeast Asia, which contain the Greek manifestation of Suvarnabhumī such as Chryse and Chryse Chersonesus. As scholars focus their attention on Indic and Chinese literature, studies have moved away from Classical literatures. As a result, only small excerpts of Southeast Asian descriptions within classical literatures such as the Geographia are taken into analysing the early state of Southeast Asia in the Southern Silk Road. Furthermore, most of these analytical works, such as (McCrindle, 1885) (Majumdar, 1937) are quite outdated and have not been reviewed against modern archaeological findings. This work will attempt to revive the usage of classical source in describing Suvarnabhumī and Suvarṇadvīpa, which if handled in the classical source context would be considered part of the Southern Silk Road.

It should be noted that in cohesion with his works in Mathematics, Ptolemy limited his argument to an exposition of the geometrical principles on which *Geographia* was based and to a determination of the position of the places on the surface of the earth by using knowledge of latitude and longitude. His determinations were to map the world as accurately as possible by relying on astronomical observations from each location. Although the final outcome of the work was hardly as accurate and Ptolemy wished it would have been, his geographical knowledge was far greater than that possessed by any of his predecessors, and he had access to sources of information which enabled him to correct many of the errors into which they have made.

Upon closer inspection into the *Geographia* it is revealed that the name "Suvarnabhumī" wasn't used as a reference to a specific location but rather an area, a trade location destination that covers a combination of landmass, rivers, mountains, cities, and trading emporia. Interestingly, none of the specific location within the geographical areas that are labelled as "country" such as silver country, robbers' country, labels itself by such name. This concept might have been similar to Ancient India, whereby the land itself is called Bhārata[20], but there are separate cultures and

[20] The name Bhārata has been used as a self-ascribed name by people of the Indian Subcontinent and the Republic of India. Bhārata along with India is the official English name of the country; Bhārata is the

entities inside it that are unified under the concept of Bhārata. Yet, we find that the detailed description of both the maps and the recorded account are directly pointed towards a portion of land that most historians would now agree reflects Southeast Asia. This knowledge are probably transferred to the Greeks, and later on the Romans, from trading guilds in India that were actively conducting deliveries and deals within the Eastern Indian Ocean.

Southeast Asia and parts of the Eastern Ganges was termed the "India beyond the Ganges" by Ptolemy. This is where the centre of the trade locations discussed in this research lies. It is bounded on the West by the Ganges rivers; on the north, by the parts of Skythia (Central Asia and Southern China) and Serike (Northern China); on the east, Sinai along the Meridian, which extends from Serike to the Great Gulf, and also by the gulf itself; on the south, by the Indian Ocean and part of the Green Sea which stretches from the island of Menouthias in the line parallel to the equator, as far as the region which lie opposite to the Great Gulf. It includes the great plain between the river and the Himalayas, as well as all of Southeast Asia, as far as the country of the Sinai (China). When compared to Strabo's earlier reference to the region, which was much more limited, Ptolemy's work was one of the most comprehensive in antiquity. This also applies to the work of the author of the Periplus, who was aware that inhabited countries stretched far beyond that limit even onwards to the eastern end of the world. Ptolemy used these prior information combined with other resources now lost to time to sketch a map that traces the line of the coast as far as the body of water to the east of the peninsula, which he referred to as "the Great Gulf", it was filled with tribes, trading marts, river mouths, and islands that seafarers had to pass on the way to Sinai. McCrindle have argued that base on the river connection to this Gulf and its direction, the body of water is either the "Gulf of Siam", although it could also be the South China Sea since the map leads towards Skythia's landmass. This shows a deeper understanding of world geography by the Ancient Classical Civilisations, with exception

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official Sanskrit name of the country. Bhārata includes many countries, states, and culture that are part of the geography make up. "India", which can trace its origin to a Greek source, is a foreign prescribes term for countries within the Indian Subcontinent.

to China, which was interpreted as a landmass connecting either eastwards or towards the southeast of the Southeast Asian landmass. Regrettably, original source by Ptolemy is no longer available, and most of the sources are copies of his works done by scholars in the middle ages. Provided the knowledge decline since the fall of Alexandria during 391 CE[21] onwards, documents are scattered across the Ancient World, most are transferred to the new Roman capital in Constantinople, but knowledge and access to Ptolemy's primary source are no longer available. As time progress, details of the map itself are slowly lost, and it was not until the Age of Discovery that western sailors began to map the details of Southeast Asia again. Much of this knowledge would have been distorted not only due to the destruction of the primary source, but also because Ptolemy's work was a compilation of anecdotes given by different travellers and accounts by different trading culture. The classical world relied not only on connections with the Himyarite kingdom (Ray, 2003) to operate trade in the Indian Ocean, but also Indian merchant guilds that were hiring to sale the eastern Indian Ocean for cargo deliveries. More will be analysed on the nature of these guilds and their economic benefit to the early Christian era later on.

We know from these copied references that description concerning Southeast Asia could be divided into five parts; it is the land towards the east of the Ganges, and the west and south of China. Specific description of lands associated with gold are referred to as "Chryse Chora or Khryse Khora" (Golden Land) and "Chryse Chersonesus or Chryse Chersonese" (Golden Peninsula), scholars would associate them with Suvarnabhumī and Suvarṇadvīpa respectively. (Phasuk Indravuth, 1996) (Wheatley, 1961) The origin of this interpretation was probably prominently cased constructed in the 1800s by the orientalist Sir Henry Yule, whom argued that the Greek name was a literal translation of the Sanskrit language. (Colquhoun, 1883) At that time, scholars, under the influence of colonialism school of thoughts, were convinced that this location

[21] Decree of Theodosius outlawing Paganism was issued, which led to the destruction of many documents within the Library of Alexandria.

lies within the present day Myanmar. To this day, the hunt for specific land of gold still persists.

Ptolemy relied heavily on verbal accounts from travellers and traders; sometimes the direction and the latitude and longitude estimates are highly off the calibre. More importantly, one of the descriptions that became generalised is the direction of Chryse Chora because he places it near Bêsynga and towards the north of Argyre. However, upon review, his accounts also included a description on the country known as Maisolia/Masalia (Phasuk Indravuth, 1996), a country that corresponds to the area around Masulipattanam in Andhra Pradesh, Eastern India, which was an *apatherion* or a point of departure for ships bound for Chryse Chora and Chryse Chersonesus:

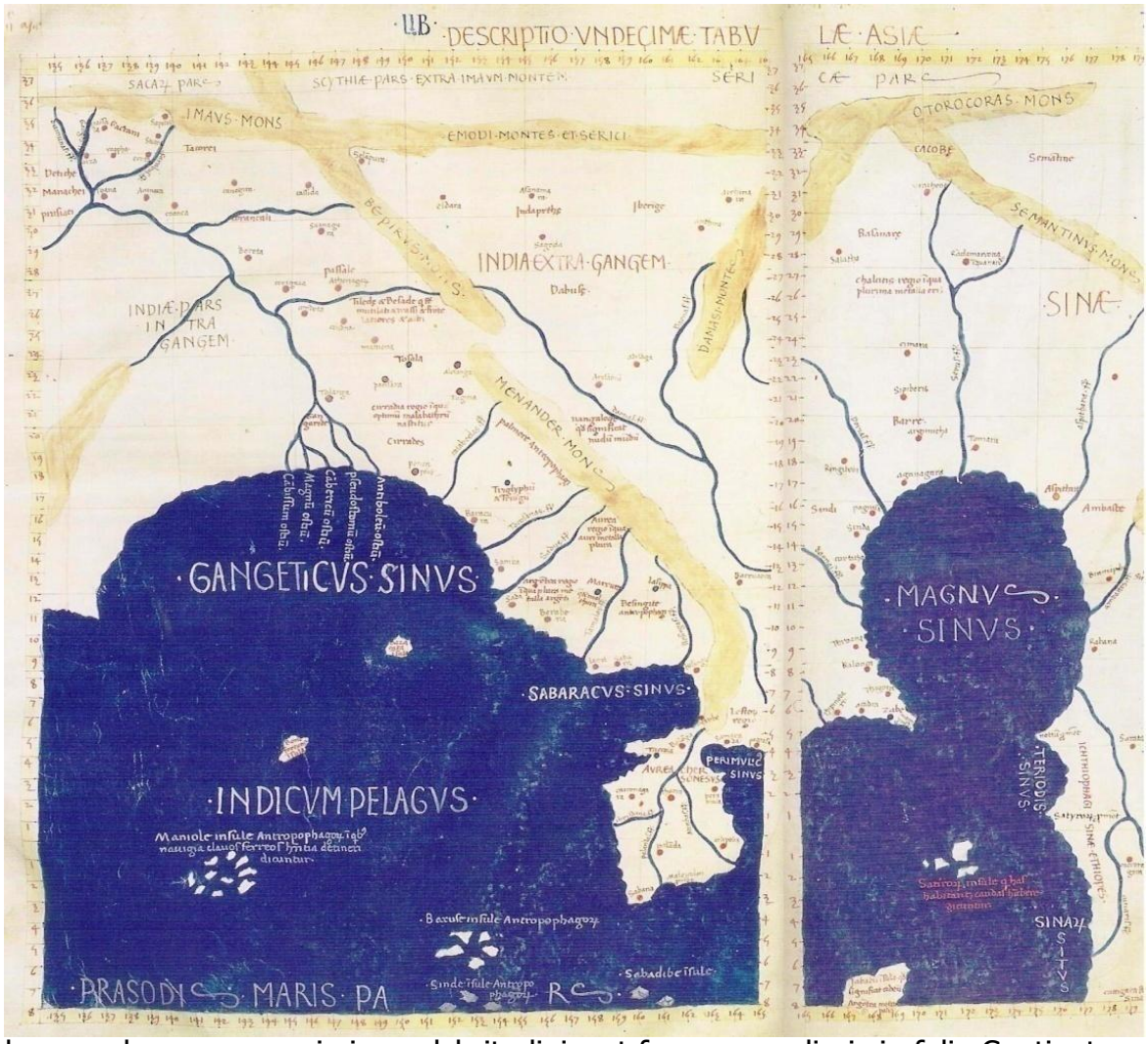
Beyond the Silver Country in which there are said to be very many silver mines (μέταλλα ἀσήμου) is situated in juxtaposition to the Bêsyngeitai, the Gold Country (Χρυσηχώρα) in which are very many gold mines, and whose inhabitants resemble the Zamîrai, in being fair-complexioned, shaggy, of squat figure, and flat-nosed. (McCrindle, 1885)

The direction given for Chryse Chersonesus is that it lies towards the southeast of Airrhadoi that has a port city known as Barakoura, passing through Argyre; Chryse Chersonesus contains the port cities of Takkola and Sabana in the bay of Perimoula. These descriptions will be explored into further details in the following section, but from the classical literature, it could be concluded that at least the direction for sailing Southeast and East of the Ganges is consistent in the both the navigation accounts and maps. Since China was known to the Romans, the land mass situated "in between" certainly could not have represented China or Sri Lanka, which was recognised as a separate description, the only reasonable conclusion was that it must have been the Southeast Asian landmass that was represented in Ptolemy's map. This land is composed of different regional geography, possibly cultural economic groups as follow:

- Argyra, the Land of Silver

- Bêsyngeitai, the Land of Cannibals
- Lêstai, the Robber's Country and Chryse, the Land of Gold
- Chryse Chersonesus, the Golden Peninsula
- Perimulic Gulf, "The Great Gulf"
- Island Countries, composing of what is probably the Andaman Islands in the Nicobar, and three islands called "Sindai", five islands called "Barousai", three islands called "Sabadeibai", and the (Sabadios), which is known for its fetility, gold produce, with a capital called Argyrê (Silver Town).

Figure A: Early Copies of Ptolemic Map 82 (Asia, Beyond the Ganges)



(Codex membranaceus, eximiae pulchritudinis, et formae amplioris in folio Continet Ptolemaei Geographiam , 1460-1506.)

Southeast Asia and Trade in the Geographia

Ptolemy called the most eastern branch of the Ganges as "Antibole or Airrhadon", this is probably *Hradana*, the Sanskrit name of the Brahmaputra. Antibole was the name of a town situated at the confluence of several large rivers to the South East of Dhaka. Near Airrhadoi is the much debated town of the Kirata people, which was described by the Periplus as "a people which lived on the coast to the southwest of the Ganges". Scholars still are debating whether the Kirata people have actually travelled so far as Chuturgrama (Chittagong) and Arakan or could Ptolemy have made a mistake base on the wrong confused information provided by Periplus. Similarly on migration, a point worth recognising in terms of migration is the fact that the Kalyani inscription, which talks about the Gaudas who moved from eastern Ganges towards the coast of Arakan, also reflects this eastward movement of eastern Ganges people. (Majumdar) According to Ptolemy the best malabathrum was from Kirradia or Kirata, which was associated with the coast of Arakan.

"Beyond Kirrhadia in which they say the best Malabathrum is produced the Zamîrai a race of cannibals are located near Mount Maiandros."

The botanical species of Arakan have thus far been underexplored. Although further studies have been conducted, none were able to identify the specific location of Kirata. The malabthrum, stemming from a compound of the word "tamala" (Sanskrit for cinnamon) and "patra" (a leaf), is a reference to either one or more kinds of cinnamon and cassia-tree. This particular kind of spice was widely traded and precious in the Southern Silk Road.

However, the cannibal reference associated with the region coincides with the description of Naga tribe that resides in the area between present day Assam region in India and Myanmar. A point worth noting, from the cannibal reference is that similar description of Southeast Asia, or more specifically Suvarnabhumī and Suvarṇadvīpa, also exists in Indic literature. We only need to look at the words of Sugriva, whom

warned the Vanaras of wandering off too far into the land of cannibals as mentioned before, or even in Buddhist texts. In contrary to the general perception of the introductory of Buddhism into Southeast Asia in the time of Ashoka, references to Suvarnabhumī never appeared in the Ashokan rock edicts. (Phasuk Indravuth, 1996) Nevertheless, Suvarnabhumī was mentioned in Sinhalese Chronicles, where Sonathera and Uttanathera were picked because of their power to overcome demons or "*pisace*", Suvarnabhumī were known to be the lands infested with cannibals, thieves, spirits, and demons. Greek description and latter records seem to reflect similar views, especially in Chinese and Arab literatures. The coastlines on the west of Southeast Asia, from Yakhine down to the Strait of Malacca, were infested with pirates who had their main bases at Johor and Sumatra. This will was perhaps less highlighted by scholars, especially nationalist ones, who seek to glorify the image of Suvarnabhumī by highlighting only its wealth dimension.

The start of descriptions eastwards from the Ganges in the Geographia is the start of civilisations and settlements beyond the Ganges, which lapses into Southeast Asia. As far and antiquity knowledge is concerned, an extensive amount of record was compiled about the Ganges, it is enough not to cause confusion, but facts becomes much mystified as it progresses eastwards. References east of the Ganges river according to a 1465 copied version of the Ptolemaic map, and other versions of the map of "India Beyond the Ganges", not counting China and the pacific island, depicts the following geographical structures and settlements:

Table 1: Component of *Geographia*, Tabula XII (India beyond the Ganges)

Silver Country (Argyra)		
Sambra, a city	153º 30′	13º 45′
Sada, a city	154º 20′	11º 20′
Mouth of the River Sados	153º 30′	12º 30′
Bêrabonna, a mart	155º 30′	10º 20′
The Mouth of the river Têmala	157º 30′	10º
The cape beyond Argyra	157º 20′	8º
Triglypton, a metropolis	154º	18º
Bêsyngeitai Cannibals Area on the Gulf		
Sabara, a city	159º 30′	8º 30′
Mouth of the River Bêsynga	162º 20′	8º 25′
Bêsynga, a mart	162º 20′	6º
Berabai, a city	162º 20′	6º
The cape beyond the area	159º	4º 40′
Golden Chersonese (Χρυσης Χερσυήσοω)		
Takola, a mart	160º	4º 15′
The cape beyond the Golden Chersonese	158º 40′	2º 40′
Sabana, a mart	160º	3º SL
Mouth of the river Palandos	161º	2º SL
Cape Maleon Kôlon	161º	2º SL
Kôli, a town	164º 20′	On the equator
Permonla	163º 15′	2º 20′
Perimonlik Gulf	163º 30′	4º 15′
Kokonagara, a city	160º	2º
Balongka, a town	162º	4º 40′
Lassippa/Lasyppa, a town	161º	12º 30′
Tharrha, a town	162º	1º 20′ S
Palada, a town	161º	1º 20′ S
Rhingibêri, a town	166º	18º

Tomara, a town	172º	18º
Dasana/Doana	165º	15º 20′
Mareoura, a metropolis	158º	12º 30′
Bareukora (Bareuathra)	164º 30′	12º 50′
Lêstai (Robber's Country), Chryse		
Samaradê	163º	4º 50′
Pagrasa	165º	4º 50′
Mouth of the river Sôbanos	165º 40′	4º 45′
Fontes Fluvil	162º 30′	13º
Pithônobastê, a mart	166º 20′	4º 45′
Akadra	167º	4º 45′
Zabai	168º 40′	40º 45′
The Great Gulf		
Thagora	168º	6º
Balonga, a metropolis	167º 30′	7º
Throana	167º	8º 30′
Mouth of the river Doanas	167º	10º
(Source of the river)	163º	27º
Sinda, a town	167º 15′	16º 40′
Pagrasa	167º 30′	14º 30′
Mouth of the river Doanas	168º	15º 30′
Aganagara, a city	169º	16º 30′
Mouth of the river Sêros	170º - 173º	17º 20′ - 27º
End of the Great Gulf	173º	17º 20′

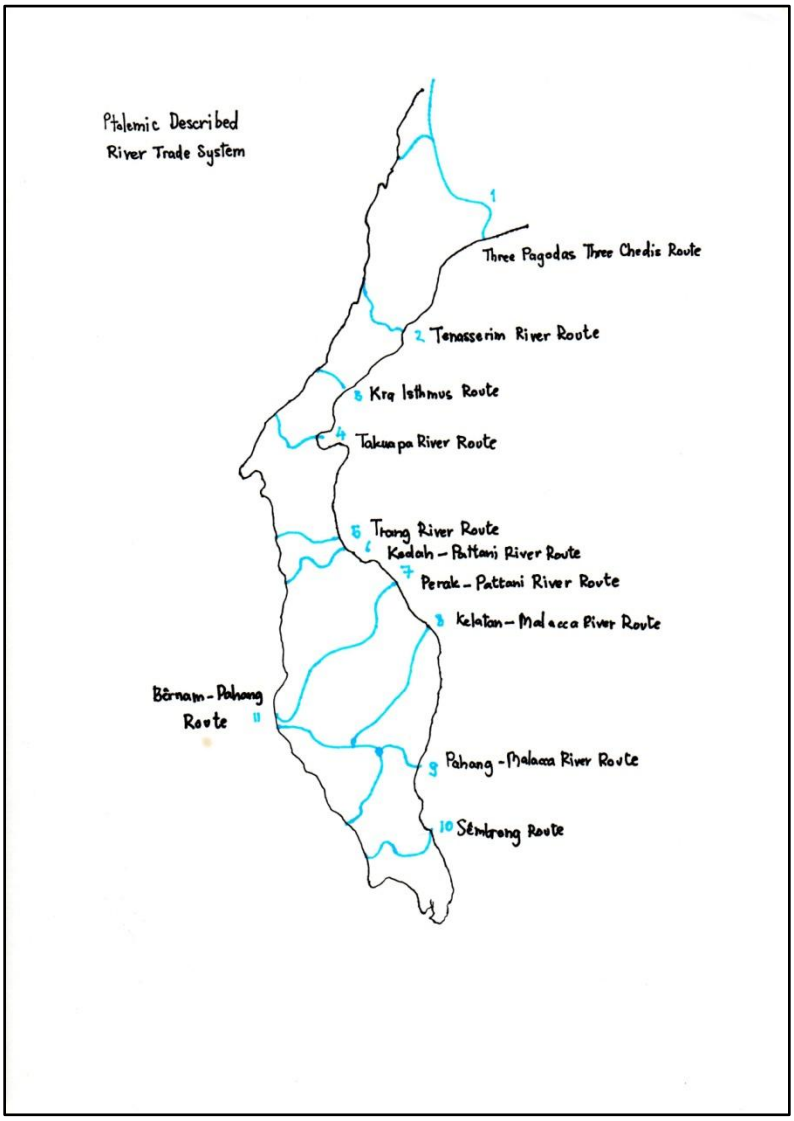
After exiting the Ganges delta, along the coastal line one runs into the territory of Argyre, the land of city. Its port city "Sada" is mentioned in Ptolemy's introductory book as the first port on the eastern side of the Gangetic Gulf, or the Bay of Bengal, at which ships from Paloura on the opposite coast touched before proceeding to the Golden Chersonese and the Great Gulf. In his interpretations McCrindle believes that "it may perhaps have been Ezata, which appears in Pegu legend as the name of a port between Pegu and Bengal". However, later scholars like (Singer, 2008) would argue base on stronger archaeological evidences and more widely interpreted texts that Vaishali, situated in the Kaladan River Valley and part of the Arakan State probably falls more into the category of the so called "Agrye" in Ptolemy's text. Nevertheless, Ptolemy's work offers an interesting cartographic insight into the respective direction of the trade route which is indisputably eastwards along the Bay of Bengal. After Sada, eastwards along the coast is "Temala" or "Tamala", which is the name of a town, a river, and a cape. The introductory book said it is situated 3500 stadia to the Southeast of Sada.[22] Beyond Sada, the *Geographia* mentions the Sarabakic Gulf, which is a coast eastwards from the Ganges. If we are to geographically incur its location, it would place the area near the current Gulf of Mataban. In the book, this area was said to be inhabited by a group of cannibal known as the *Besyngytai*, whom inhabited the area around the *Bêsynga* River. The term *Bêsynga* on Ptolemy's map denotes both town and river. Near the river mouth of the river an emporium named "Lassen" is situated.

According to most contemporary scholars, the Golden Chersonese often denotes the Malay Peninsula. Earlier scholars like McCrindle, who interpreted Ptolemy's map and the Indianisation school, would often place it in the Delta of the Irrawaddy. This view is taken from English colonial scholars who conducted their studies within Myanmar, during a time which studies in other studies on the Southeast Asian region was still limited. The southern Myanmar view was supported by the reference to *Sonaparanta* or

[22] At this point it is perhaps worth noting that Ptolemy's references from Pomponius Mela (43 CE) mentioned that the ruling dynasty of "Sada", a name that Singer believes is a deviation of the Prakit. "Chada". The city was referred in the Mahaniddesa as "Sada", said to be a premier port of call for shipping from Palur in the Gajan district of Kalinga and Tāramlipta.

the Golden Frontier, within Southern Myanmar that is often associated with Suvarnakudya. Latter scholars like Wheatley, would argue that Suvarṇadvīpa lies southwards from the Golden Frontier, and well within the Malay Peninsula, even extending into the island of Sumatra. The inclusion of Sumatra Island, into Ptolemy's map was supported by the idea that Ptolemy could have been unaware of the separating land masses between the island of Sumatra and the Malay Peninsula. Regardless, the precise location of Argyre and Chryse Chersonesus is not as important as them being trade locations that are situated on the east of the Ganges and that navigational instruction to reach them exists. The concept of a trading emporium like those of Takkola, in the Chryse Chersonesus, or Lassen, in Argyre, defines the cultural nature of these locations as well as their possible connectivity with further inland settlements. Most of these emporium and cities are described by Ptolemy as being near or on a river mouth, which indicates a possibility of river trade network. Pomponius Mela, the Roman Geographer, stated that "in the vicinity of Tamus, is the island of Chryse, in the vicinity of the Ganges that of Argyre. According to older writers, the sail of the former consists of gold, that of the latter silver and it seems that either the name arises from this fact or the legend comes from the name" (Suárez, 1999) Either way, there seems to be a definitive connection to valuable metals and Southeast Asia, which will be discussed in the latter section on commodity trade.

Figure B: River System Suggested by Wheatley



Aside from cities, emporium, and settlements, Ptolemy's map also provides a detailed geographic description of the surrounding mountains and river. Amongst, them is the Chrysona River, which older scholars like Yule believe to be the mouth of the Irrawaddy river, after the old name of the eastern branch river, *Suvarnanadi*. Another river is the Sabana River, and its mart which lies towards the south of the Chrysona River, which could have been a distortion from Suvarna, "golden coloured". The status of rivers in antiquity trade network is quite clear in Southeast Asia; evidences of river based activities have persisted well into latter cultures like the Angkorians and Ayutthayans. A trade network between Nan Zhao and Vaishali through the Irrawaddy

was known to have supplied precious silver produce for export out of the coast of Arakan during the Pyu kingdom. The same river also serves as a trade network between the cities within the cultural spheres of the Pyu Kingdoms, such as Dhannavati, Sada (Vaishali), and Vishnupura; and Dvaravati cultural centres (Mon-Khmer) such as Sri Kshetra, and Temala in the Irrawaddy River Valley. (Singer, 2008) Furthermore, higher sea levels in the past allowed smaller ships to traverse between the sea ports and the river trade centres, research into locations like U-Thong and Kubua in Thailand have suggested that waters were not only deeper in earlier antiquity, but goods were being transported from the Andaman sea into the Gulf of Thailand via river connections. Archaeological investigations for traces of ancient waterways in both sites, even including along the Three Pagoda Fault line areas has reaffirmed the existence of water passages, as suggested by Wheatley. (Wheatley, 1961)

The town of Koli, in Ptolemy's map provides an interesting cross review of the trade route that stretched into Chryse Chersonesus. In the proceeding of the Royal Geographical Society vol IV, p 639, Colonel Yule, argued that Ptolemy's description of the coast from this place to Katigara could be compared with navigation accounts from China in the 1st or 2nd century as well as those made by the Arabs approximately eight centuries later. The Ptolemic route to Sinae, or China, which supports the notion that Indo-Roman and Indo-Greek trade networks might have extended beyond the Eastern Indian Ocean and the contemporary Bay of Bengal, mentioned many names en route to Sinae that were never lost to history as well as those still yet to be identified. These names seem to come from an altered version of the Indic version, such as Sabana, Pagrasa, R Sobanos, Tiponobaste, Zaba, Tagora, Balonga, Sinda, Aganagara, Brama, Ambastas, Rabana, River Kottiaris, Kookonagara etc. In one of the many original studies on the possible location of these names, Henry Yule states that Koli was the location where Greek and Arab routes coincide, "I take this Koli to be the Kalah of the Arabs which was a month sail from Kaulam (Quilon) in Malabar, and was a palce dependent on the Maharaja of Zabaj (Java or the Great Islands) and near which were the mountains producing tin. (Yule, 1913-1916) Koli is also mentioned in the Chinese

history of the Tang dynasty in terms indicating its position somewhere in the region of Malacca...." From this record, we know that the primary commodity of Koli was tin, and that demand for this produce extends back to the expansion of Greek trade, until the Arabs in the 14th century. Furthermore additional record by Pomponius Mela stated that between Koli and Tamus (possibly China) the coast is inhibited by people who gather rich harvests from the sea. It is worth noting that tin was a resource rich in Southeast Asia, especially the western part of the Mainland Peninsula, tin was also an essential mixture for the production of Bronze, aside from southern Egypt, ancient tin sources were rare to the Indian Ocean.

Amongst some of the most interesting feature of Ptolemy's map is the Perimulic Gulf, which Pliny mentions an Indian promontory called Perimula. It was said to be the location of very productive pearl fisheries and a very busy commercial mart that lies 620 Roman miles from Patala. If the lands to the east of the Ganges, then the only explanation for water body on its eastern side is the Gulf of Thailand and the South China Sea. *The same body of water is called the* Sea of Kedranij by the Arabs*.* In some version, the same body of water is referred to as the "Great Gulf". Furthermore, the mouth of the Sobanos River, that connects with the Great Gulf, could possibly be a reference to one of the many settlements in Central Thailand that were known to be early trading cities in early antiquity such as U-Thong in Suphanburi. (Srisak Wallipodom, 2002) and Oc Eo in Vietnam. (Phasuk Indravuth, 1996)

According to the literatures, emporiums were large trading marts that gathered many different groups and their commodities, some were less elaborately attired than others, but each had a unique cultural identity and sometimes accounts would contain physical features as well as commodities sold. Furthermore, trade fairs or trade gathering seems to be an economic activity in the past as well. This is recorded in the account given by Periplus on a trade fair held annually near the city of "Thina", which were attended by a group of people known as the Sesatai, who were described as "...*squat figure, broad faced, and in appearance like wild beasts, thought all the same they are quite mild and gentle in their disposition. They resort to this fair with their*

wives and children taking great loads of produce packed in mats like the young leaves of the vine..." Periplus seems to give importance to describing the feature of these mats and its construct, which he stated was made from a type of plant product known as the "Petroi". This material was woven using sinews and fibres, "*taking the leaves fold them double and roll them up into balls through which they pass the fibres of the Calami."* The function of this mattress seems to also include a packaging property, which were used by the locals to carry back many goods from the fair. The purpose of the trade fair could either be an annual opportunity for different groups to gather and exchange goods as well as stockpile goods. Ultimately, all sought of fairs organise in this manner would probably have created more trade networking and opportunities for merchants. A group of people often disputed about from the area beyond the Ganges are the Ganganoi or Tanganoi, whom are often associated by scholars with the Tangana people of the Mahābhārata who brought gifts of gold and horses to the king of Hastinapur. Although their origins were unknown, they were recorded as old inhabitants of the Ganges, who used to have their city in the eastern region. They are associated with shouldered adzes culture, and the extent of their habitation extends from the river Sorabos in the Great Gulf to the Sapolos River. (McCrindle, 1885) . Maritime trade navigation would have been possible through the river system of the mainland peninsula. The mountainous landmarks that include many types of rock formations would have provided routes and direction for river mouths and sheltered bay spots, which were filled with populated communities. These communities, such as Khao Phra Mee at Kura Buri in Phanga, Thailand and the route along Khao Sam Roi Yod limestone mountains in Prachuapkirikhan Province, Thailand serve as trade pass way and trade emporiums in the past, which would have connect with major trade cities like U-thong, Nakhon Sri Thammarat, or harbours like Chumpon habour in Ban Don Bay, Pakasai Pier in Pakasai District, and Au Luk bay on the western coast of Thailand. There were many inland and river routes connecting to inland cities and state-like polities, which were developed to sophisticated level of agricultural and technological expertise, which demonstrated logistical capability which can commute international trade.

Another point worth observing in the description relating to gold and silver trading cultures within the Ptolemaic map is the reoccurrence of "wealth themes". The name Chryse and Argyre were not used exclusively for one location, but different locations. This would not have been odd since gold and silver were universally precious ores for most cultures. If the etymological source of the names is indeed descriptive, and a transfer from the Sanskrit definition, then it could indicate that there may be several locations that were known as gold and silver trade locations. For example, on the map there is a silver country on what appears to be the land mass to the east of the Ganges, but at the same time there is also a town by the name of silver in the Island of Iabadios. From classical writings records dating back to the 2nd century CE, the Indo-Roman trade route was highly organised and well documented. Regardless of certain clarity problems in specific details, these records suggest a highly elaborate network of cities, trade emporiums, and network in Southeast Asia that are linked to the Classical World, Indian Subcontinent, Central Asia, and China. We now know that base on literature and terminologies, Suvarnabhumī and Suvarṇadvīpa is probably only a link to a greater sea and hinterland trade route that operates both inter and intra regional. The terminologies have provided descriptions on the area and the importance it has in ancient trade, as well as the description of notorious grounds for thieves, pirates, and muggers that can only make economic sense. There are also indications of intraregional trade between cities, such as trade fairs being organised to gather different communities. Evidences of localised trade network in Southeast Asia, and extending even as far as Taiwan Island extends back to the mid 3rd to late 1st Millennium BCE for Southeast Asia.

Chapter IV
IDENTITY, COMMODITIES, AND ECONOMIC WEALTH

Early Southeast Asia, linking from accounts Suvarnabhumī and Suvarṇadvīpa can be described as an area that linked international trade. Most of these trades are done through the maritime route, which is dubbed Southern Silk Road, while some connections to regional trade, and hinterland trade connecting to the land Silk Road exists, it is not part of its major characteristics. Its geographical nature provides a trading hub that links maritime network from the Indian Ocean into the South China Sea, and linking the Sea to the Landmass and River Trade. Different trading spheres exists whether it be the Bay of Bengal Interaction, the Mainland Southeast Asia and Archipelago Network, the Archipelago to Indian Ocean Network, or even Han Chinese relation to the Southern China Sea entities. These trades are often conducted via middlemen, whom probably did not operate from Indian merchants alone, but local traders, possibly in the form of guild trade and production network would have played a role in operating this network as well. We can reasonably assume that technology transfer was quite dynamic, which will be discussed in this section and that actors that created such society would have been complex enough to operate a large emporia that was described as "having everything from every parts of the world" by visitors. Much of these activities would have needed local political and religious support. This compliments the idea of mandala governance suggested by O.W Wolters, a non centralised state with cultural and trading mind would have supplied the necessary conditions for the economy to thrive. (Wolters, 1967) Yet, relaxed centralisation and "hot pot" cultures of emporia would have explained slow development of distinguishing and free-of-foreign-influence urbanise culture.

In 26 BCE, Augustus received an envoy from the Far East, and an albino elephant was put on display in Rome. The albino elephant was considered the carrier of Indra, and is sacred and native to Mainland Southeast Asian. Trade between the Greeks/Romans and the East was boosted by heightened demands for ivory and spices.

The establishment during the time of Alexander's reign was partially disrupted by his death but in 360 BCE, Seleucus Nikator negotiated a rite of passage with the Mauryan court and an ambassador by the name of Megasthenes was sent to Pataliputra (Patna). It was the first time a full exploration was given to the Western world, and as a result information was gathered on the formerly unknown Ceylon, Tibetan plateau, and the geography of the Ganges River and the Himalayans. The knowledge on "India Beyond the Ganges" was hence forth established. Simultaneously, there was a surge in western GDP per capita during the 3rd century BCE, Roman cities and cities along the trade route were enjoying greater welfare benefits in terms of commodity choices and goods. The Eastern Mediterranean reached its income per capita maximum between ca. 200 BCE and 120 CE, a level reinstated after the 1500s. (Foldvari and van Leeuwen, 2010) This dramatic decrease in the per capita value added can be attributed to the result of a decline in the manufacturing sector, partly as a result of the loss of export markets, and partly due to the contraction of the local market. During its height, technologies were developed in order to create greater efficiencies in seafaring and trade. In 166 CE a roman musician travelled to China via Myanmar. Although trade was highly controlled and regulated by Arab and Indic traders, Greek and Roman sailors were sailing the Indian Ocean by the early Christian era. Pliny recorded that "a voyage to Ceylon from Prasii was made in seven days in boats build of papyrus and with the kind of rigging employ in the Nile". Suggesting that boat building technology were probably shared among different merchants, which probably included Southeast Asian ship builders who operated a trade route with Madagascar. Ship building technology in Southeast Asia undisputedly improved during the middle of the 3rd Millennium BCE, as long distance voyaging with double or single hulled outrigger canoes and plant-built boats were made for navigational purposes. Simultaneously, there was an expansion of pottery-using, agriculture, and Austronesian-speaking people throughout Island Southeast Asia. This is particularly true for previously uninhibited islands such as those of within the Western Pacific rim like Fiji, Tonga, and Samoa.

To understand the significance of Southeast Asia in antiquity and the impact from trade, it is perhaps best to analyse the trade route into the form of commodities traded and the medium of exchange that were used in antiquity.

Trade and Southeast Asia could be separated into intraregional and interregional trade. Intraregional trade is trade within Southeast Asia itself, this may include within the Mainland Peninsular, the archipelago, or between the mainland and the archipelago. While interregional trade often involves exchanges with other regional cultures such as those of the Mediterranean basin, Indian Subcontinent, and Chinese civilisation. The extent area that Southeast Asian cultural group's habitation is highly disputable, given that records suggest that the Mon-Khmer and the Tai cultural groups that now dominate Southeast Asia used to extend well into Assam and Southern China. Although there are limited records and archaeological evidences as to how impressed pottery and shouldered adzes culture got as far west as Eastern India, traces of these cultures are still prevalent into modern times and could be found in Assam, Bengal, parts of Uttar Pradesh, Bihar, and Orissa. These artefacts and cultures could have reached Eastern India via maritime or coastal trade, albeit poorly supported evidences, or could have resulted from the distribution of such cultures from South China and Vietnam, reaching India via Myanmar and Thailand. (Glover, 2006) Evidences suggest that there were no long distance trade in Eastern India prior to the Iron Age which began in 750 BCE, Mainland Southeast Asia followed within a respective hundred years or so. The Munda language (an Austroasiatic language related to Mon-Khmer) is also known to have spread throughout the region and is still found through various tribes of Eastern India. It is hard arguing whether these people have arrived in the region as a result of migration, trade, or was indigenous to the region. Yet, an eastward migration following the series of invasions from western cultures into the Indian subcontinent several hundred years before the Christian era is undisputable. The consequences of these invasion and simultaneous migration might have opened knowledge and exposure to new trade route eastwards, which began to emerge around the same date. This was of

course followed by the emergence of Southeast Asia early states in the 1st century BCE, especially within Myanmar and the Malaysian Peninsula.

Archaeological investigation of India prior to the 3rd century BCE reveals a different portrait of development that contrasts images given by literatures. Early Iron Age Eastern India was a composition of small settlements and little organised agricultural society, the transfer to metropolis of early Christian era was mostly fuelled by the trade wave that swept its way east and increased demands for productivity. In the words of the late Ian Glover, "splendid and trifling trade in spices, perfumes, precious stones and pearls, silks and muslin, tortoise-shell, ivory and rhinoceros horn, dyes and unguents, ghi, lac and so on scorned by the high-minded Gibbon for undermining Republican virtues," were perhaps one of the most highly valued luxury of the east, and it bought great wealth to producers and traders seeking to supply the sophisticated urban civilisations in the Classical world and China. Despite their high value, the low amount of archaeological evidences and literature support for such trade, made it almost impossible to pinpoint the initial phase of spice trade in the Indian Ocean with origins from Southeast Asia. Traces of most goods traded between Asian and Europe have either decayed beyond recognition such as cotton, silk, wood and lacquer or have gave up the ghost such as slaves and elephants. Otherwise, raw materials such as Iron ore and precious gems were usually transformed and customised beyond supply source recognition, and would often be identified in through art history method as simply belonging to the particular culture producing the final good.

Concentrations have been made in the past towards demand for gold, precious stones, pearls, horses and other items for elite consumption. (Ray, 1994) This is because these commodities are often easily identifiable in archaeological records, which leads to the erroneous assumption that the Early Historical trade was mainly a luxury trade. As a matter of fact, when investigating the Arthasastra, one would find that not only luxuries were traded but also tools and agricultural produce that would be valuable to those who lacked the raw materials to produce fine tools. The importance of trade in subsistence good often has been underplayed in archaeological literature, while

maintaining on the assumption that large urban centres were self-sufficient. In retrospect, this assumption does not make sense in terms of economic production, whether in the past or present, agricultural communities would be subjected to production rate fluctuations, while supply alters, demand often does not. Hence, the theory of luxury trade in the ancient world relies upon the assumption that ordinary peasant could not afford what was not grown locally, thus inhibiting any large-scale movement of staple goods. The hazardous nature of early farming and variations in output would presuppose a sizeable flow of trade in staple products; in fact, the Arthasastra itself gave special favours to importers from foreign land especially through the water routes. It is worth noting that it is commodities are likely to be cheaper to move by water whether through the river or coastal routes. The Mauryan court treated this by introducing a tax-benefit for merchants importing goods via water trade, which was higher than land import benefits (Shamasastry, 1915) Thus, goods imported from foreign countries to the Mauryan court, which included goods from Suvarnabhumī, would have been favoured in the Indian court as a added social welfare. Following the logic that greater import diversities would have brought about greater GDP per capita or welfare to the nation, which could be concluded in parallel to the Roman case around 3rd century BCE when international trade was at its height in antiquity.

Spices

In an age where spices are accessible in the local super market, it is probably hard to imagine wars being fought over such a commodity, but during antiquity spices were valued as much as it was during the colonial era. This was especially true for pepper that was considered an exotic spice of the east, especially the black pepper, which was found in Southern India and Southeast Asia island archipelago. Pepper was the luxury good that became so popular to the Hellenistic world that Pliny the Elder wrote in amazement as follow:

"*It is amazing that pepper is so popular. Some substances attract by their sweetness, others by their appearance, yet pepper has neither fruit nor berries to commend it. Its only attraction is its bitter flavour, and to think that we travelled to India for it! Both*

pepper and ginger grow wild in their own countries, yet they are purchased by weight as if they were gold or silver."

Much of Southeast Asia's spice concentration is cluster in the rich forest of its island archipelago. The fertile soil in Southeast Asia, especially in the river deltas created a suitable condition for agricultural industry development. Products such as rice, spices, and forest products such as horns, antlers, leather and wood would have been a common good. However, due to similar geographical conditions these goods would have been substitutable in most export destination such as the fertile lands of the Ganges. Thus, it is likely not a luxury export that would have earned economic value to earn enough wealth to be dubbed "gold" or "gold like", unless it is a form of rare forest harvest that are only present in southeast Asia, like the contemporary case of saffron to the Spanish peninsula, and the truffle to Italy. Lower value commodities and agricultural harvest would have only facilitated small scale petty trade as a result of low demand and revenue margin. The unique rice varieties that are present to Southeast Asia, such as the Hom Mali rice in contemporary times, would have earned some value as a luxury export to decadent markets in China and the West. Evidences of rice cultivation in Southeast Asia stretch back to early Iron Age, although most farming attempts were most likely for subsistence purpose, there were evidences of agricultural developments such as the irrigation in Chansen, Thailand.

Another popular harvest from native to Ternate, Tidore, Motir, Makyan, and Bacan, which were among the Maluku Island (Spice Islands), Indonesia, until the late 18th century CE was the unopened buds of the Kutze tree known as Eugenia aromatic or cloves. This product was known to the Chinese court since the 3rd century CE, and described by Pliny the Elder. The production of spices such as cloves, nutmeg and mace played a large part in transforming the Malukan society from scattered kin-based communities to coastal trading states. This is perhaps a circumstance where interregional trade resulted in a demand surge, which triggers a characteristic of trade dependency in the evolution of that society. This is example is also true for latter trade dependent state such as the Sri Vijayan Culture, the demise of Chinese tribunal demand

route, resulted in the decline of a large maritime culture. Josephus, the Jewish historian, who wrote in the 1st century CE, offered his explanation of the Biblical story of Solomon and Hiram's joint trade mission to the distant land of Ophir. In his Antiquities of the Jews, he stated that the voyages began at Red Sea port of Ezion-geber and were destined for the islands near the land of Chryse in the east of the Erythrean Sea (Indian Ocean). Ezion-geber was a city near the modern city of Eilats, Israel. According to the Old Testament, the voyages to trade with Ophir took three years to complete.[23] Josephus proposal of the voyages to Southeast Asia was forwarded later on by Philo of Byblos who translated the History of Phoenicia by Sanchuniathon[24]. Philo's account contains the Phoenician version of Solomon and Hiram's trade mission to Ophi, which also took three years to complete. The goods brought back from the journey were apes, peacocks and ivory, tropical products and spices, mostly native to Asia. The interpretation Philo gave for Sanchuniathon's history, which was written earlier, provided clearer direction in terms of identifying Southeast Asia as compared to the jargons and the confusing terms presented earlier. For an extensive period of time, there were much confusion regarding the description and origins of spices that were being traded in the urbanised Mediterranean basin cultures. Although most agreed it could be traced as far as Africa, references often suggest a farther east tropical location. The explanation to this was pushed forward by James Miller who proposes that Pliny and other evidences suggest that Austronesian traders had brought spices to African markets via the southern maritime route. A claim made based on evidences of Iron Age Austronesian seafarer settlements in Madagascar. According to Miller, spices from Southern China, and both mainland and insular Southeast Asia were brought by the people by the Chinese name of Kunlun and Po-sse. Although there is no definite identification of these southern tribes, they were probably a people belonging to the Austronesian speaking culture. In addition to the evidences in Madagascar, there are also various evidences found throughout the south-eastern shore of Africa which

[23] Kings 10:22; II Chronicles 9:21

[24] Considered a fraud by modern scholars, it was not later on that discoveries from Ras Shamra in the Levant indicate Philo's work was authentic.

indicated these early trade contacts such as barkcloth and the introduction of various agricultural species. As there are currently no evidences of historical cultivation of these spices in Africa, it can be concluded that they must have come from different sources, and records indicate that it reached Europe from tropical lands in the Far East. By identifying the native origin of the spices, most could be trace back to the spice islands of Southeast Asia.

Cassia and cinnamon were two other spices that would have been shipped from Southeast Asia to Sri Lanka and the Indian Subcontinent, then eventually finding its way to Eastern Africa and the Mediterranean Basin. These two spices that also originated in the Maluku Islands became a high value commodity in ancient trade. Studies regarding the origins of flora in sub-Saharan Africa show that three food plants, which includes plantain, taro and water yam, were introduced from Southeast Asia at some undetermined date. Moreover, banana phytoliths found in Cameroon was dated between 850-390 BCE, indicating that bananas were introduced into Africa only within the 1st Millennium BCE.

Activities between these southern tribes with the Han Chinese were quite well recognised, this link was even more extensively enlarged during the Three Kingdom period. Clove routes were known to have been constantly traded between India and China, with Southeast Asia in the middle of the maritime route. Indisputably the trail of cloves, cinnamon, and cassia in the old spice routes could be found originating from Southeast Asia in Maluku and the southern Philippines, heading north to South China and Indochina and then south again along the coast to the Strait of Malacca. Distributing itself along the way and could have crossed over the river systems into the Andaman sea. This route leads the cloves to spice markets in the Indian peninsula and further west. The north-south commercial through the Philippines from Maluku into China has been recognised by UNESCO as part of the ancient maritime spice route, which persisted into the expansion of Islam into the region, and was recorded by Arab sailors. (Dhida Saraya, 2011) This route would have traversed down through the islands picking up along the way aloe woods and sandal woods, or the famous agaru of the

Arthasastra, before setting its course into the Gulf of Thailand, and coast trotted down to the Strait of Malacca before heading west in the Indian Ocean. There are no clear records on the advent of spice trade that runs from Southeast Asia to Africa or other parts of the world; in fact the details of the route did not exist in specific until a much later date in history when places like *Zabag* and *Waqwaq* are mentioned by Arab traders. Despite their mythical component, the navigational direction and description did suggest a great degree of wealth and prosperity to be gained from trading with these respective cities. Like the Indic version of Suvarnabhumī and Suvarṇadvīpa, the Arabian islands of *Waqwaq* was a destination of wealth and gold, but also of dangers and life threatening demons, for seafarers. Arab literatures recite of ships and people from Zabag and Waqwaq coming to African ports for trade and even on occasion to conduct military raids, indicating that the trade with these islands would have been a bi-polar relationship as oppose to resource harvesting. The same is probably implied for seafaring technology that was used to carry these people across the sea.

Evidences of spices that, till this day, could only be traced with its origins in Southeast Asia have contended the idea of maritime trade; especially in earlier antiquities when trade was suppose to have extended only to Western Indian Ocean. Across the Classical World, tropical Asian spices were found extended as far back as the New Kingdom in Egypt. Egyptian literatures talked of long distant voyages to the land of "Punt", bringing back hoards of treasures and exotic goods as tribute to the Pharaohs. Some of these spices included black pepper which was found along with the mummy of Ramses II, dating back to 1473-1458 BCE; cloves dating back to 1,700 BCE, which were found in Terqa; camphor found with the mummy of Ramses V, dating back to 1153-1147 BCE; and cinnamon found in the northern Mediterranean and the mummy of PUM II in 6^{th} to 7^{th} century BCE and 2^{nd} century BCE respectively. While the hard evidence linking clear trade between Southeast Asia and Eastern Africa is still fragmentary, the quantity and characteristics of spices found among ancient sites could argue a plausible trade. We know that urban settlement in the Ganges delta like Chandraketugrah, a political twin city of Tāramlipta, may have dated back to the 5^{th} or 6^{th} century BCE

(Chattopadhyaya, 2006), and terracotta urn styles found at these sites suggest Egyptian inspirations. Provided the fact that coastal navigation itself, by using oars may have predated deep sea navigation, and that booms of urban settlement in the Ganges delta is highly correlated to trade, it may have been possible that maritime trade network between Eastern Indian Ocean and Africa may have predated conventional historical dating. It is irrefutable that the distribution of spices across lands within the Indian Ocean prior to the rise of large urbanised culture in its homeland is still under explained, but it may have contributed greatly to increased wealth among its traders much like it did with the European traders in latter times.

Ores and Minerals

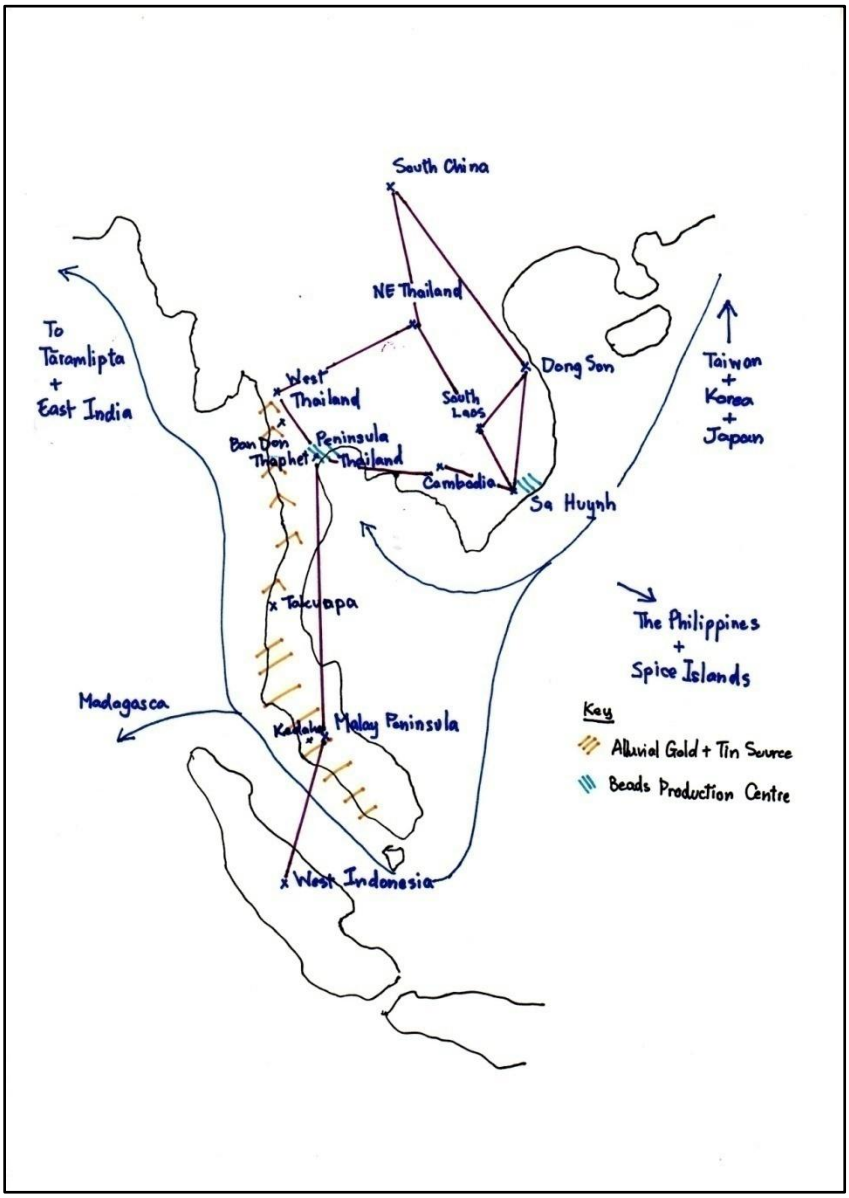
Ores were unevenly distributed and were generally found at some distance from centres of habitation. This is different from the widespread deposits of irons and copper ores which were scarce and remote from most settled places. As a result, many settlement areas in the Indian Ocean were forced to rely entirely on imports as a source of metal. This does not only make metal producing communities at an advantage, but gave extreme wealth to its traders. Furthermore, the significance of bronze drums or Dong Son and Sa Hyunh cultural artefacts which were found across early Southeast Asia also indicated a network of trade that were revolve around a highly sophisticated bronze producing culture. These drum culture are associated with seafaring culture, as indicated on the patterns of the drums, and usually the settlements usually sits on a nearby tin deposit. Tin is the essential ingredient to making high tin bronze, a trait acknowledged by Ssuma Ch'ien as a technology unique to the "Tai people" or a group of Tai Language speaking cultures. This suggested that either the trade route significance was heighten because of urban expansion and demand for tin and bronze, which were scarce elsewhere, or there were also simultaneous technology trade along with commodity transfer. Despite the absence and scarcity of copper and tin, which are essential to mixing bronze solutions, in the Indian Peninsula, there are deposits of Bronze materials and goods found across India and the Ganges settlements. Tin mines are not uncommon to the Southeast Asian geography, especially the Malay Peninsula

that used to house a high concentration of tin deposits. (Ray, 2003)Bronze vessels are highly concentrated in Western Southeast Asia and ancient port sites like Oc Eo. Amongst those found, the cluster at Ban Don Tha Phet in Kanchanaburi demonstrates a uniquely thin construct (approximately 0.3-0.5 millimetres thickness), which shows that the bronze vessels were made through lost wax casting instead of hammering techniques. There were also bronze boxes and conical containers for ceremonial purposes found among the artefacts. Meteorology inspection reveals that the bronze contains 20-28% of tin composition; unlike usual bronze this concentration of chemical mixture allows the bronze to be particularly shiny when polished. Bronze casted by the lost wax casting techniques were also found in the Mauryan site in Bhir Mound, where bronze mixture ranges from 21-25% tin solution, which also yields a highly fragile bronze material. Early records from Near Chus in 326 BCE, noted that Bronze used by Indians were made by casting rather than hammering, and would often break when dropped. (Phasuk Indraravuth, 2007) There are no conclusions whether these bronze vessels were imported to Southeast Asia from India or vice versa; however, copper is a rare element in the Indian peninsula both the *Periplus of the Erythrean Sea* and Pliny's *Natural History* recorded that Indic cities were importing copper and tin from Eastern Africa to Barygaza. Economising the same logic, it would have made perfect sense for settlements nearer to the Eastern Indian Ocean, especially the Mauryan settlements near the Ganges, to import tin and copper from Southeast Asia. Even though the mining industry was encouraged by the Mauryan court, and some copper deposits could be found in Rajasthan, Kashmir, and Baluchistan, tin were still scarce to the local geography, and were more highly concentrated in South Egypt and Southeast Asia. Furthermore, Southeast Asia was known to have developed a unique Bronze culture that links highly to maritime traditions such as the Sa Huynh and Dong Son culture. H.B Sankar noted that according to evidences of trans-oceanic trade based on beads found across Southeast Asia, there was enough evidence to suggest the establishment of states like Tun-Su and Pan Pan, which were known trade centres in the Malay Peninsula. Key valuable commodities traded involved semi-precious stones, gold, horses, pearls, gems, diamonds, and Dong Son drums, which were considered as an

item of prestige. These drums are made from high tin bronze, which gives it a particular shiny quality, much like the bronze found at the Kanchanaburi site. Trade centres where these drums are found could be linked with boat burial cultures. (Ray, 1995) These ores may symbolise the spread of maritime culture through mainland and archipelago Southeast Asia. It demonstrates both connectivity between spans of Bronze Age settlements and genetic interactions between different groups of people. Furthermore, the presence of precious ores such as alluvial gold, and tin, signifies high value natural resource. People that have learned to both harvest and process it, as evidence in the refined processing of various tools, jewelleries, and drums, must have enjoyed the benefit of selling these processed goods and resource to produce it to trading partners that do not possess such materials. It is an assumption to assume that only luxury goods were exported in ancient trade, inspections into local accounts such as the Panini and Arthasastra has revealed that necessary goods such as agricultural tools and axes were also imports from locations rich with tin and iron minerals. (Shamasastry, 1915)The imports of these goods were given special tariff reductions in order to encourage better welfare in the importing cities. Since necessary goods such as tools would be subjected to depreciation cost, simply put their daily use means that they will break, it is also necessary for trading cities to ensure a constant supply of these goods. This means that whoever was the producer in the supply chain, would most likely enjoy a constant income from exporting such goods as well.

Bronze Drums

Figure C: Dong Son and Sa Huynh Trade



Bronze drums are probably the best indicator of early culture economic wealth and prosperity in Southeast Asia. Not only are they a symbol of power prestige, but the craftsmanship of these items and the capacity to possess and produce them in large scales also suggest a complex economic system. Ambra Calò suggested that bronze drum characteristics, especially those found in Klang and Battambang demonstrates a direct maritime trade link between the Malay Peninsula and early settlements within the

Gulf of Thailand. Sites where bronze drums are found were usually collecting centres for resources, such as Selangor and Thailand that were rich in tin, Pahang and Terengganu that were rich in alluvial gold. (Calò, 2009) Like many trade emporiums in the Silk Road, the locations of these trading marts often are placed strategically to facilitate logistics between Mainland and Island Southeast Asia. Usually clustering in key points within the Gulf of Thailand and various small islands, they would then grow into large trade emporiums with market expansion such as Talaitakkolam and Ancient Kedah. Drums are also found in locations where there are "easy access to river ways, inland from river deltas, or on coastal areas favouring maritime traffic"[25] Furthermore, these bronze drums do not only indicate advancement in maritime exchange network within Southeast Asia, but also extension towards inland networks that links directly with Southern China and Yunnan. Calò argued that the Dian cemetery drums which were originally considered to be Dian drums were in fact imported from Dong Son region due to the bronze attribute and decoration which highly suggested North Vietnam style. These inland trading routes were probably very much like those of the river network trade which ran in the lower mainland peninsula. The Red River that flows from west-central to Southeast Yunnan and the Gulf of Bac Bo in North Vietnam served as an axis of trade, which not only consisted of commodity exchange, but also those of people, religious belief, and cultural ideas. Although the drum serves no actual productivity purposes, they are crucial in terms of tying trading partners in symbolic and ceremonial aspects. This may serve to ensure constant supplies and demand of subsistence trade between culturally similar trading partners. Studies of small scale groups in New Guinea, argues that the demand for these "non-utilitarian prestige goods functions to maintain the constant manufacture of necessary goods, such as axes and salt, which otherwise could be interrupted when demand for these items diminishes". The same logic would have been applied to salt production and iron smelting trade in the Korat Plateau and Central Vietnam, as well as alluvial gold deposits and gold production in Kalimantan.

[25] Ibid

Often sites associated with bronze drums would also contain links to boat burials, which indicates an emphasis on either religious or cultural heritage that links with maritime navigation such as the three pairs of bronze drums and 90 boat shaped dug out wooden coffins found in Ongbah cave in Kanchanaburi and those of bronze drum burials found at Kubua. It is worth noting that during the time period around the 3rd century BCE onwards until the establishment of large maritime cultures like Sri Vijaya, the boat is not only a symbol of economic wealth but also prestige across the Indian Ocean. This is also true in peninsula India where inland cities and nations would often try to boast influence and power by depicting and highlighting connectivity with maritime access. (Ray, 1994) Even though evidences of maritime trade that ran through Southeast Asia from the west extends back to around 5th to 4th century BCE, with glass trade crossing Southeast Asia into China[26] (Jiayao), the development of a complex social structure in Southeast Asia seem to not be acknowledge by contemporary academics until a few centuries later, where they are classified as "chiefdoms" until around the 3rd century CE where early states are suppose to develop. As for the validity of this theory or model, this thesis will proceed to explore further in the economics evaluation of the trade network.

Commodities, Beads, and Development

The trail of beads across the Southern Maritime Silk Road was perhaps the best indicator of trade in the Indian Ocean that stretches out towards China and into the Mediterranean Basin. Providing the inconclusive proof to the location of Suvarnabhumī/Chryse/Chin-Lin and other alternatives, it is hard to pinpoint the existence of the city itself versus the surmounting evidence that Southeast Asia in itself played a large geographic role in facilitating to the ancient trade network, and potentially the advance development of Eastern Indian urban settlements. The concept of emporia or trading hubs as listed in the Geographia by Ptolemy is confirmed by tracing the Indo-Pacific beads that are found throughout the region. Even though the presence of the beads themselves cannot match the locations to the map, but at least it

[26] Earliest glass samples found in China were related to either Wu or Yue States, which were located on the eastern coast of China, suggesting that glasses were first brought to China via maritime route.

could be inferred that these locations are active on the trade network. Ports like Arikamedu, Poduke, Klong Thom (Kuan Look Pad), Takkola, and Oc-Eo were not imperial outpost of Rome, but rather major cities and commercial ports that attracted Roman traders in the early Christian era. Frequent interaction between ports, and the dependency of the culture's economy on trade would have made these large ports trade with one another, but more than commodity, the goods found across these locations also suggest technological and knowledge exchanges.

This indication of knowledge exchange, accumulation, and establishment is hinted in a later time period, during King Rajendra Chola (1012-1044 CE), "the *prasasti*[27] records the Kadaram expedition, that mentioned large "heaps of treasures" accumulated by Rajendra in his war with Kadaram." This country is now believed by scholars to be Old Kedah, somewhere in the Malay Peninsula, a location often referred to as "Suvarṇadvīpa". Meenakshisundararajan believes that the factor contributing to this invasion was to secure a constant supply of gold that was being exported from the east and "the region known as Suvarṇadvīpa and Suvarnabhumī". (Meenakshisundararajan, 2009) This is supported by the evidence of alluvial gold abundance on the peninsula and the Chola Empire lack of needs for control over governance in the region. They merely demanded a tribunal supply of goods from Kadaram, especially gold. According to the Tamil stone monolith, Rajendra's expedition to Sri Vijaya encountered a formidable maritime power with established structure:

"(Who) having despatched many ships in the midst of the rolling sea and having caught Sangrama-Vijayottunga-varman, the king of Kadaram together with the elephants in his glorious army, (took) the large heap of treasures, which (that king) had rightfully accumulated: (captured) with noise the (arch called) Vidyadhara-torana at the "war-gate" of his extensive city, Sri Vijaya with "the jewelled wicket-gate" adorned with great splendour and the "gate of large jewels"; Pannai with water in bathing ghats; the ancient Malaiyur with the strong mountain for rampart; Mayurudingan, surrounded by the deep sea (as) by a moat; IlangAshoka (that is, Lank Ashoka) undaunted (in) fierce

[27] Stone monolith

battles; Mapappalam having abundant deep water as defence; Mevilimbangam having fine walls as defence; Valaippanduru having Vilippanduru (?); Talaitakkolam praised by great men (versed in) sciences; Madamalingam, firm in great and fierce battles; Ilamuridesam, whose fierce strength rose in war, Manakkavaram, in whose extensive flower gardens honey was collecting; and Kadaram of fierce strength, which was protected by the deep sea." (Sastri, 1955)

Provided that Talaitakkolam or Takkola is a city predating the Chola-Sri Vijaya war by centuries, it is worth noting that the description of Talaitakkolam (Takkola) was associated with knowledge and sciences. This suggested that the city was probably an old establishment as are many educational cites across the world like Takshashila (Taxila) and Nalanda, and probably enjoyed a degree of information storage as well as wealth prosperity. Trade within the Bay of Bengal did not emerge as a sudden movement, but took place prior to the Chola invasion of Sri Vijaya, the *Periplus of the Erythraean Sea* mentioned Chola, and in a map written later on by Ptolemy, the country of Chola had ports and inland cities. This was derived from interpretation of the phrase "Orthura regia Sonarti", which scholars believe to be Uriur, the capital of Soranatha, or the king of Soringae, that is the Soras, Choras, or Cholas." (McCrindle, 1885) The Cholas controlled the extensive maritime network that spanned from the Coromandel Coast across the Indian Ocean and the Arabian Sea.

The earliest confirmation of contacts between Southeast Asia and South Asia, as evident by archaeological finds, is during the Late Metal Age burials of mainland Southeast Asia, where in Taungthaman, on the low terrace above the Irrawaddy flood plain, which is similar to Ban Don Tha Phet that exhibited many trade items and beads. Among these includes the 324 unique pieces like the carnelian lion bead, imported from India. Most renowned was probably the etched carnelian bead, a craft unique to South Asia which was believed to have originated from the Harappan period. Approximately 50 of these beads were discovered in Ban Don Tha Phet and an equal number have been found in Major sites like U Thong and Kuan Look Pad in Krabi. (Ray, 1994)

Beads are small objects, usually not more than a centimetre in diameter, but perhaps one of the most intriguing aspects of ancient international trade. Although their values are unknown, we can project that beads were used to display beauty and eloquence much like modern jewellery. Furthermore, these beads may have served as a medium of exchange much like shells, ores, and minted coins. Their compounds vary base on the origins of production technology, which ranges from gold, rare minerals, gems, to pottery and glass. (Lankton and Dussbieux, 2006) However, unlike modern fashion where everything is predetermined from global fashion centres like Paris or Milan, beads reflected different ethnic, cultural, and religious groups in the world of trade. The span of bead trade stretches across continents and is visible in almost every human settlement in history. The extent of beads trade has carried Roman Beads to Southeast Asia, and Indian glass bead to Ancient Egypt. (Francis, 2002) In Southeast Asia, archaeologist found that inhabitants have been making beads out of shells since pre history. Glass and stone beads were discovered dating back around 500 BCE, which is when the accounts on the word "Suvarnabhumī" began appearing in Indic literatures. Huge deposits of stone beads were found in Mainland Southeast Asia and the Island Archipelagos, showing an overwhelming preference for stone beads and products. The Bay of Bengal Sea in ancient maritime trade was the epicentre of commercial activities in terms of acting as the Southern Silk Road.

Southeast Asian Glass Beads are small, monochrome drawn (cut from a tube), and are found at archaeological sites all over Southeast Asia. Although the origin of the style is still unconfirmed, these beads were made by a unique method. There are speculations that the technique might have originated from Southern Indian settlers in the region during the late centuries BCE, but there are no evidences to confirm this hypothesis. They spread from different regions such as: Mantai, Sri Lanka, Khlong Thom, Thailand and Oc Eo, Vietnam. Typically, the settlements, found at Khlong Thom and Oc Eo, are associated with the Funan culture in Mainland Southeast Asia. Glass beads are considered a product of prestige all over the Southeast Asia, and were also used to exchange in barter trade. Evidences found in royal or noble tombs in China

demonstrate their high value. Evidences of where beads are linked to trade could be seen through the Funan culture in Southern Vietnam and Cambodia, which served as a meeting point for traders from China, Southeast Asia, India, and the West during 50 CE to 500 CE. However, the Funan culture alone does not represent the entire extent of cultures that were active traders in Southeast Asia. Archaeological digs revealed that the extent of glass beads reached even further inland and were found in Central Thailand as well as modern day Southern Myanmar, which acted as trading hubs in the Bay of Bengal.[28] The amount of traded good in a particular region usually reflects the economic importance and prosperity of an area; the more advance a good a locality produces the greater it reflects the social complexity of the market. Southeast Asia was both a bead trader and producer extending back to 500 BCE onwards.

Beads

Beads production in Southeast Asia began earlier than the growth of Southern Silk Road. Sites like Phromtintai in Lopburi, Thailand, were producing beads out of shells, glasses, and stones and had trading activities with other nearby settlements such as Nonmakla and Ban Don Tha Phet in Kanchanaburi. Many of these trading activities began around 500 BCE and subsided by 1500 CE. Each site had evidence of agricultural irrigation, production and bronze making. By tracing the composition of each type of glass beads and matching it with furnace remains, the production origin could be identified, and along with it, understanding and analyses on technology and trade exchanges. Glass beads scattered throughout Southeast Asia and the Southern Silk Road could be loosely categorised as "Indo-Pacific Beads". This type of beads is known for its monochrome feature with colours that varies from dark blue, marine blue, green, red, orange, white, black, to yellow. They are commonly found in gravesites, which could attribute their affiliation with ritualistic ceremonial purpose and the afterlife. Beads are often incorporated with earrings, pendants, necklaces, and bangles, serving a fashion purpose. These beads played a significant role in the ancient trading network since they are relatively common and easy to produce. Mostly evidence

[28] Ibid

of production clusters in Mainland Southeast Asia, with occasional appearance in major Southern Islands like Sumatra and Java, some beads are also found among sites in the Philippines as well as Taiwan. However, there is an absence of evidences for local workshops in both countries, which suggests that they may have arrived from other locations via trade or immigration. Dating has revealed them to be from around first century CE.

An example of these glass beads is the Phromtintai beads, made from silica, which is a fluxing agent, and a stabilising agent. Silica can either be obtained from sand or quartz stones. Sands contains a higher melting point, which means there is a need for an advance furnace and a fluxing agent, which can either come in the form of potassium oxide or sodium oxide. These chemical coposites are quite common among plants that grow on sands or found in mineral layers. As for stabilising agents, which prevents glass from melting in water, is found in limestone (calcium oxide) or aluminium (aluminium oxide). In addition, glass beads can also contain colouring agents that are found in nature, which are made from different elements such as copper, tin, lead, cobalt, iron, or antimony. Hence, each region and bead manufacturer will have different 'recipes' in terms of making that particular product. (Henderson, 2000) For tracing trade and exchange route, this chemical composition became a leading indicator of each goods origin. Another possible method to trace from the chemical compounds left on the furnace remains. Potash beads made from potassium oxide as fluxing agent are a local commodity to Southeast Asia. Glass with potassium fluxing agent can be found in Vietnam and Cambodia, Ranong archaeological site in Phukhaotong, Thachana in Surat Thani, and Khao Sam Keow site in Chumbhorn, as well as a Hun burial site in China. (Lankton, 2004) Potash beads unique to Phromtintai producers are marine blue or dark blue.

Another type of bead made in Southeast Asia and exported with great popularity to the Southern Indian market is Soda Glass beads. Made from sodium oxide as a fluxing agent, it contains a high level of aluminium which prevents the glass from melting in water. Rarer than potash glass beads, soda glass beads comes in shades of

red, yellow, orange, or turquoise. Among the remains of the beads found at Phromtintai, a skeleton was found with soda glass bead encrusted with gold ornaments. The last form of glass beads worth acknowledging is the mineral soda type, which contains a variable amount of alumina and limes. Also unique to Southeast Asian production facility, its trail spreads throughout both Mainland and Island Southeast Asia. This type of bead is highly popular appeared in Angkor Borei, Prohear, Lach Truong, Ulu Leang, Kratom Chan, Arikamedu, Anuradhapura, and Ridiyakama. (Dessubieux and Gratuze, 2010)

Other types of beads are also found scattered throughout various sites that could have been emporium in the southern trade route, among them are golden glass beads, imitation stone glass beads, faience beads, and weathered glass objects. Golden glass beads are one of the many ancient traded objects, the content of these beads contain a high level of sodium oxide and lime, which are commonly referred to as "soda-lime beads". These beads are believed to have originated from the Mediterranean area during the Roman era. The same beads were also found in Faras (City in Nubia) and Caerleon (Roman Fortress in Great Britain). Dating back to the 2nd and 3rd century CE, traces of it could be found leading from Egypt to the Mediterranean, South Asia, Southeast Asia, and China. Carried by merchants from the Mediterranean, gold glass beads are found in ancient trading port sites like Oc Eo, Kuala Selinsing, and Guang Xou. In Thailand, they are found in Thungtuk, Pang Nga Province. This glass beads composition also matches with known glass beads solutions that originate in the Middle East.

Other weathered glass objects are also found in the archaeological site across the Gulf of Siam, particularly in the Central Thailand river deltas settlement. These late Bronze Age site would usually yield glasses which contains different shapes and chemical solutions. Most of artefacts were rare imported objects, which could be traced back to, other Southeast Asian production facilities, or are either from South Asia or Middle Eastern origin. (Bellina, Bacus, Pryce, and Christie, 2010) (Lankton, 2004) (Phasuk Indravuth, 1996)Skeletons in these sites would indicate that there may have

been a vast number of wealthy or significant individuals in the settlement. Many of these settlements would later become part of the larger Dvaravati culture. In addition, this trade network also links with Island Southeast Asia sites. From analysing Indo-Pacific beads found in Luzon, The Philippines, archaeologists found that the nepherine and sodalite within the "yellow beads" suggested that the raw materials were likely from Myanmar, indicating that it was manufactured in Mainland Southeast Asia. Furthermore, studies also suggest that glass beads making techniques and bronze production technology were transferred to Taiwan during the "early Sanhe phase" around 310 BCE to 580 CE, from Mainland Southeast Asia particularly Thailand or Southern Vietnam. This opens room for a lot more questions in terms of the role Southeast Asia played in distributing technology to different places and settlements.

Technology Transfer and Trade

Earlier theories, especially Indianisation school, suggest that the transfer of commodity and production technology arrived in Southeast Asia via trade with China and South Asia. This theory is disputed by latter scholars arguing for local technological evolution and indigenous knowledge. Amongst the evidences use to establish these claims are stone beads, which are found in Southeast Asia sites like the Phromtintai and Ban Don Tha Phet. These beads are mostly made of quartz group stones like agate and carnelian. In addition to these stones, nephrite and serpentine, which belong to the green stone category, are also common. According to an interview with an antique bead trader in Bangkok, antique carnelian stone beads are commonly found in Lopburi, although the same type of beads is found in Cambodian sites, the colour from Lopburi are much darker and the stone reflects more light. The origins of the stone beads are still disputed, especially the production technique which is similar to the techniques used in South Asia. However, some archaeologists believe that the beads may have originated from Mainland Southeast Asia. (Theunissen, Grave, and Grahame, 2000) In order to reveal the production source, a test was made to evaluate the stone content of carnelian beads against those found in Gujarat, India. The stone content matched those that were in Gujarat. Yet, some of the stone samples were locally made products. Given

that the dating of these beads are from the same period, it is inconclusive whether the beads were originally made from India, or made in Southeast Asia first. Nevertheless, the presence of the beads in both locations suggests that it must have been an object of fashion in the ancient world that was worth producing for export. Another technology often perceived as having Indic origin is the Javanese glass beads that appeared during 250 to 1500 CE. Examination of the glass technique reveals Persian origin, which provides evidences for the span of trade route into Southeast Asia. Analysis on beads, beads which are locally made with distinctive stripes and 'double eye' from Central Java, reveals a similar or perhaps identical to the beads that appeared at the Hermitage Museum in St. Petersburg. The beads in Russia were found in the northern region of Afghanistan and Turkmenistan, which could suggest a cross trading route from the land Silk Road. It is worth noting that the same trade route from Central Asia also operated horse trading to Kedaha and Talaitakkolam via Tāramlipta. Horse traders began transporting horses from Central Asia into Southeast Asia as early as 3rd century CE, according to the Chinese texts. (Bhaumick, 2001:73) The time period is noted for the expansion of the White Hun into the Indian Peninsula, particularly the White Huns or Yuezhi tribe which later formed the Kushan Empire. These same traders probably brought with them smaller valuable products such as silk, leather and beads. As for the horses traded, it could not be confirmed whether the horses imported to Southeast Asia were of the Kirghiz breed, or even the legendary Ferghana horses[29], but judging by complimentary evidences such as beads, horses may have arrived in Southeast Asia from Central Asia prior to the Arabian breed that came with the Arab traders. Making it imported goods that have arrived in the Southeast Asian Peninsula during ancient trade.

Part of beads making does not only have to do with the span of trade, but also the traded technology that comes with the production of beads. There is a close tie between glass production and iron casting technology. Evidences from Ban Bon Noen, Chonburi, revealed that iron casting was available in the area from around 500B CE to

[29] Blood sweating horses referred to by the Chinese, a highly valuable good in the Silk Route that was supplied to Wudi's court.

700 CE. Originally, Archaeologists believes that the technology to produce Indo-Pacific glass beads originated from Arikamedu in India, but further excavations in Ban Don Tha Phet, Kanchanaburi reveals that a large amount of beads found dated back to 4th Century BCE, which either suggests Arikamedu had been producing and exporting beads since then or Ban Don Tha Phet also produces those beads. Further studies on Ban Non Neon also revealed that beads were found less in Ban Non Neon when compared to sites around it, which suggest that Ban Non Neon might have been a bead production facility during the 4th century BCE like Ban Don Tha Phet. Although the number of beads recovered from Ban Bon Noen is small by comparison with finds from other sites, the facts that it is a non mortuary site and that the excavation was only $35m^2$ makes the quantity of beads found significant. There were comparatively small varieties in the beads recovered from Ban Bon Noen with the exception of the red-core beads and the rectangular collar beads, which were also found at Oc Eo and Ban Don Ta Phet. (Glover and Alvey, 1985) At both these sites, however, the Ban Bon Noen types were only a small proportion of those present. The square, rectangular, bi-conal, and polyhedral beads and other more complex forms present at Oc Eo and Ban Don Ta Phet were not found at Ban Bon Noen. (Pilditch, 1992) The evidences that there were only limited types of beads that were found, that at the time of production closure in layer 1 dig, the production facilities might have been on a decline. In addition, raw glass and malformed beads were also found to support the notion that it could have been a production facility. Such production facility would put Ban Bon Noen and Ban Don Tha Pet on par with historical production cities in South India like Arikamedu. Furthermore, it would be older than any other beads production sites found in Southeast Asia such as Khuan Lukpad. However, it is worth noting that trade could also have been a possibility in Ban Bon Neon since it rare beads were also found on the site, even though in limited numbers. This could have been attributed to the limited number of preferences, either way, it would not have been odd also if a production site that was selling beads would contain anomalous beads since trade in technology and design could have occurred. Furthermore, given its age and popularity of the beads itself, the

owners of the facility should have surmounted enough wealth to purchase rare beads to demonstrate social status and wealth.

Ban Don Tha Phet is described as "among the richest and most important Iron Age sites yet excavated in central Thailand. The burials uncovered included iron tools and weapons as well as ornamental bronze jewellery and bowls. Furthermore, there is a large deposit of glass, agate and carnelian beads. The jewellery designs at Ban Don Tha Phet reflected both Indian and non Indian inspirations, indicating local art style. Beads are found in large number on the site, among them, 3000 were made of glass while 600 were made of carnelian, agate, rock crystal and jade. Those that dated at a later date demonstrate etching techniques also found in South India. Patterns are imparted to the surface of the stone by applying caustic soda and heating. The technique is found in Ban Don Tha Phet as far back as around 395-350 BC. In addition, double headed animal figure is found, which indicates trade network with areas like Southern Vietnam and the Philippines. There is strong evidence in favour of exchange contacts between central Thailand and India from at least the 4th century BC. Moreover, a lion carnelian was found, which usually reflected the Buddha in early Buddhism, which indicated that there might have been prior religious transfer closer to the time of the Buddha around 543 BC. (Higham, 2010)

Evidences of trade and transfer of goods are not only limited to Thailand, but also found across Southeast Asia and its primary trading partner areas like China and India. Thus, it could be stated that by 4th century BC, Southeast Asia became part of this large and affluent trading network. It linked with the Mediterranean Basin via India to China through its highly desirable resources and geographical location which conveniently serves as a port to large civilisations to its west and north. Evidences of Sa Hyunh culture beads, bangles and pottery extends from Vietnam to other parts of Mainland Southeast Asia, the Philippines and Indonesia. Aside from manufactured goods, raw material could also be traded. These raw materials are a good indicator of the spread of trade in commodity as well as technology that comes with processing it. Among these materials include jade, which reflected the Sa Huynh culture part of the

trading network that links Southeast Asia with the rest of the world during the time Indian literatures began recording the term "Suvarnabhumī" in their works.

Jade earrings and beads appear throughout the region, which could be traced back to eastern Taiwan in the Fengtien region of Hualian province. (Hung and Bellwood, 2010) The type of rock used in these artefacts are made from a distinguished type of nephrite stone only found in Taiwan, which suggest that there must have been a network of raw material trade in the past as well as supply line productivity. While production facilities are not found within Taiwan, moulds are found throughout Southeast Asia in addition to evidences of material use. This suggests that there must have been a quarrying facility or settlement as well as a production settlement that is exposed to enough trade in order to know the methods to refine the raw materials and convert them into elaborate jewellery within Taiwan. It is worth noting that artefacts and raw material has been traded between Taiwan and the Philippines since Neolithic period (3000 to 500 BCE). Using electron probe analysis, archaeologists has found that nephrite from Taiwan are the most common type of nephrite jewellery found in Southeast Asia stretching all the way to Thailand and Indonesia. Furthermore, archaeological investigations have revealed that nephrite quarry villages exists in Southern Taiwan during the late Bronze Age, these cultures demonstrates linkages to the maritime culture in Southeast Asia. (Hung and Bellwood, 2010) Trade may exist on different levels, but if trade of raw materials existed the cost of trading such raw material must not exceed the revenue gained from trading the final product. For merchant ships operating such trade, profit must only exceed cost by a sizable amount to maintain trade operation. Otherwise, the only other circumstance where such commute would have been possible is the case of ceremonial or spiritual voyages. Nevertheless, such voyages would have required a constant benefactor, which would have not sustained the journeys throughout hundreds of years. Given the lack of evidence supporting the sole spiritual aspect of such mineral quarry, it is more likely that the commodity was considered of high value and was profitable for trade. This is especially true since stones are heavy and bulky for transportation. It is worth nothing

that nephrite is considered a precious stone by surrounding cultures; belonging to the jade family it is highly ceremonial in the Chinese cultures, as well as the Pacific Island cultures towards the south such as Fiji which had strong ties with Malayo-Polynesian cultures in Southeast Asia. The Maoris considered nephrite to be a treasure and used to make precious ceremonial objects, weapons, and seals for important agreements.

The techniques used in crafting of stone beads and pendants that were found in Southeast Asia do not come only from the east but also came from the west. Siliceous stone beads are known to have originated from the Harappan period in Pakistan and North-western India, while carnelian beads technology are predominant in Mainland Southeast Asia found in sites like Ban Don Tha Phet and Khao Sam Kaeo in Thailand; and Giong Ca Vo near Ho Chi Minh City as well as other Sa Huynh sites in central Vietnam. Reconstruction of these works by Berenice Bellina revealed that the techniques to make the beads are highly advanced and require skilled knowledge on heating system and stone material. (Bellina, 2003) Evidences from 4th century BCE onwards have revealed that there have been a constant flow of Indian settlements in Southeast Asia. These settlements suggest that there were craftsmen among the population, but that is not to say that there weren't prior technology before the arrival of the Indian art style. The assumption that all technology for processing elaborate craftsmanship came from India is questionable in two aspects. Firstly, the ling ling-o produce from nephrite, which is a stone similar to jade, requires advance knowledge in stone craft similar to those required to produce carnelian beads. Like carnelian, nephrite which comes from the jade family is highly fragile and can fracture very easily if mishandled. [30]This technology in Southeast Asia dates back to around the same time as the stone beads are being produced in India. Secondly, the art styles being produced by these settlements are unique to the region and free of Indian cultural inspiration, it wasn't until much later that Indian art style became more popular. Thus, the scenario

[30] On Mohs scale of mineral, which classify a stone hardness base on their ability to scratch one another ranging from 1(softest) to 10 (hardest), nephrite is scaled as 6 to 6.5, while carnelian is scaled as 6 to 7, giving them similar stone hardness property, with nephrite being slightly softer than carnelian. (Ralph and Chou, 1993-2012)

stated by Bellina that Indian craftsmen who has settled within the region with their technology and were producing "made-to-order beads" could have been true, but it doesn't account for the fact that local producers have been producing similar stones before the arrival of the Indian traders around 4th century BCE. It can therefore, be said that among Indian craftsmen that brought along new art style and technology, there were also local craftsmen who must have exchanged skills with Indian craftsmen. This may be particularly true in the case of certain beads processing and silk textile, with the latter already displaying an East to West technological expansion trend. Early exchanges between Southeast Asia and South Asia is not uncommon, drawing upon the evidence of maritime trade activities between Southeast Asia and Madagascar, South Asia becomes a natural resting stop for seafarers from Southeast Asia in the past. An archaeological report investigating links between Sri Lanka (Ceylon) and Southeast Asia reveals that on top of casual links that are demonstrated in common items in present day items in the eastern coast of Sri Lanka such as plank sewn canoe with double outrigger and the Balangoda culture in the lowlands that shares a number of tool type with Hoabinhian culture in the Late Pleistocene, evidences of trade ties and even immigration are seen in artefacts. The carved paddle impressed pottery distributed in Sri Lanka and parts of India is common to Southeast Asia terracotta works. There are also possible ground stone celts found in Kudumbigala, along with it are various forms of ground and polished stone adzes, and less commonly axes that are very common to Southeast Asian culture groups. These items were dated back prior to the 1st century BCE, when its usage were slowly overridden by iron. Culturally, Southeast Asian jar burial traditions were also found in Sri Lanka. Urn burial, a tradition common to Ancient Southeast Asia, was brought to Sri Lanka and India. Robert Fox believes that this tradition may have originated from Palawan in the Philippines based on evidences from the Tabon Caves. The same tradition spread as far as Japan by the second half of the 1st millennium BCE, where urn with iron lids could have been carried across the sea by Southeast Asian seafarers. (Solheim III and Deraniyagala, 1972) Moreover, linguistic archaeologist have identified that the Sanskrit terms for: foxtail millet (kanguni), lemon(nimbu), betal (tambuka), banana (kadala), pepper (marica), and sugar cane

(sarkara), and cotton (karpasa) were of Austro-Asiatic origins. (Bryant, 2001) Neolithic culture of Southeast Asian and South Asia seemed to share an interconnected heritage through the Bay of Bengal sphere of interaction, particularly evident in the glass ware and beads technology.

Ships and Seafaring Technology

Although there are scattered records and impression of ancient ships, unlike the dry desert of Africa that preserved remains of ancient ships, most evidences of ancient in vessels in South and Southeast Asia has long deteriorated. Archaeologists and historians had to rely heavily on accounts and images of these ships to determine their capacity. However, it is not ambiguous to infer that ships played a large part in the advancement of trade in the Eastern Indian Ocean.

Figure D: Double Mast Ship Coins from West and East India (Satavahana)

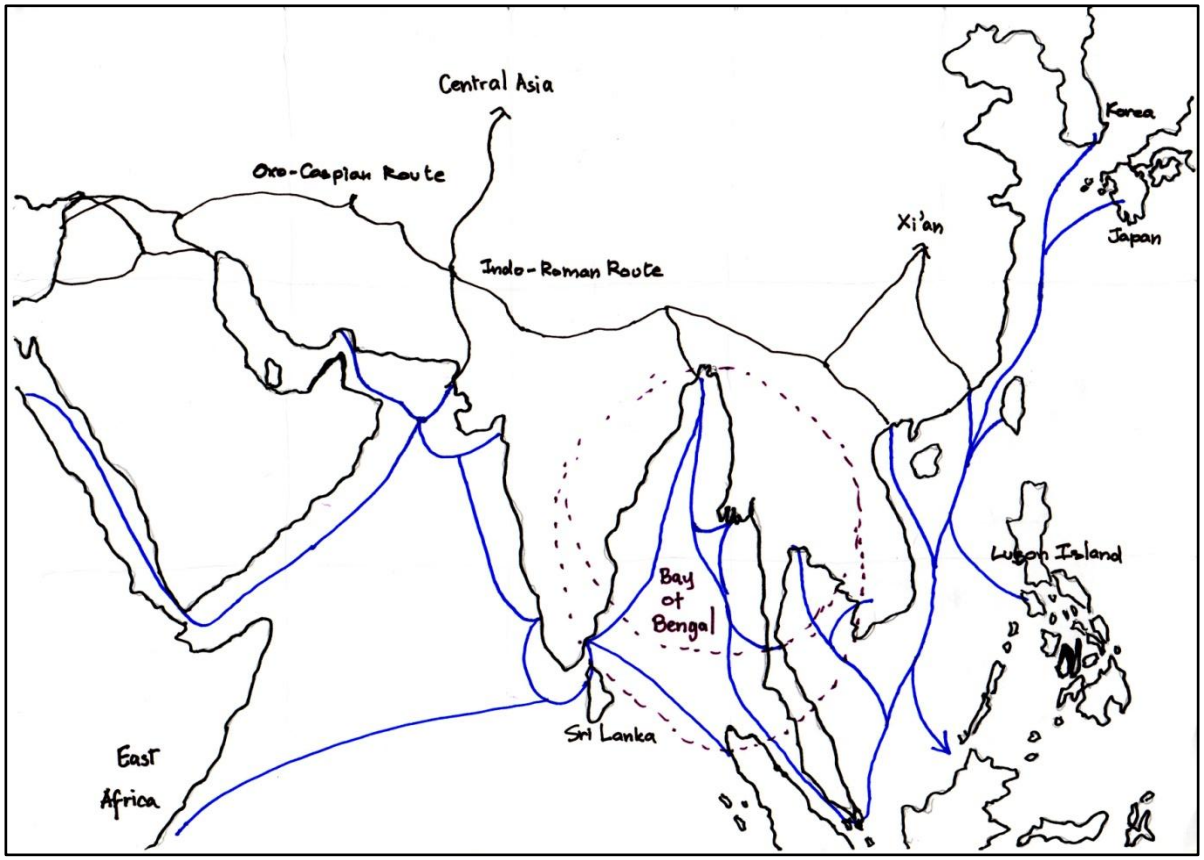
The Satavahana coins in Chandraketugrah, a political sister city of the trade harbour Tāramlipta, shows various ship types that were used in trade and commerce. Dating back to the early Christian era, these coins show double mast ships (Figure D) with thick wad visible at the mast head. These ships are different from those found on the seals around the Bay of Bengal, which were used for long navigation. Their characteristics suggest that they may have been used as coastal navigation ships along the eastern side of the Indian Peninsula. (Barnes and Parkin, 2002) Recent revelations from Tamil literature describes up to eighteen different types of vessels that were indigeneous to South India. Moreover, the largest vessel, known as "Matalat" or "Kalam", was used for long distance voyages. Another ship, known to Periplus as "Colandia Phonta", was used on voyages up the Ganges, and across the sea, some academic such as Lionel Cassam believes that its construct originated from Southeast

Asian ships. These light coasting boats were for local traffic, while big ocean going vessels would cross the sea to Malaya and Sumatra. (Kulke, Kesavapany, and Sakhuja, 2009) The knowledge seafarers had about coastal cities within Mainland Southeast Asia and the Malay Peninsula, also the Western Island Archipelagos up to Java (Nusantara or Yavadvīpa) were extensive and accurate by the time of the Chola invasion of Kadaram. Pliny recorded that these deep sea crossing ships, which traversed from East India to Southeast Asia, had the capacity to hold up to 300 amphorae or 75 tons. This is a cargo capacity capable of competing with contemporary ships. (Ray, 1995) These ships would have easily held 500 to 700 passengers, and could cross the sea to Southeast Asia in a matter of weeks.

This route facilitated many commodity flows between South and Southeast Asia, including the textile trade route that ran through Southeast Asia, which was acknowledged for introducing Indian cotton into China during the Han Dynasty in 25-220 CE. The Chinese needed large quantities of white cotton cloth for the uniforms of their soldiers in dry and hot region. Cotton became one of the most valuable imports to the Chinese court during antiquity. A link scholars make to affiliate Indian establishment in Southeast Asia can be found in one of the earliest settlements in Java, known as the Taruma Nagara (estimated to be around 5th century CE), the word "trauma" means indigo and "nagara" means city state in Sanskrit. Scholar equivocated Indian need for supply of indigo which was a dominant colour in the dyed and printed trade clothes of India, especially in Kalinga, which was assumed that the South Asian reference termed "kling", the same for textiles was because Java had settlers from Kalinga. (Kulke, Kesavapany, and Sakhuja, 2009)

Maritime exchange in Southeast Asia can be transacted into five commercial

Figure E: Trade Route through Southeast Asia



zones according to (Hall, 1985). The zone relevant to the concept of Suvarnabhumī is probably the first zone, which covers the northern Malay Peninsula and the southern coast of Vietnam. Hall believes that it was the "first to openly solicit and facilitate East-West trade during the last millennium BCE". Hall views that "during this time, Southeast Asia was regarded by foreign seamen as an intermediate and virtually unknown region lying between the riches of India and those of China. The initial agents of foreign contact were Malayo-Polynesian sailors who made voyages to as far west as the African coast and to China in the east". Early Southeast Asian seafarers headed west and

south; these groups of people mastered the long open ocean voyage to Madagascar and the Cape of Good Hope. It is worth noting that the Southeast Asia seafarers were unlike the settlers of Micronesia in that the voyages they made were frequent round trips that were active until the fifteenth century. (Suárez, 1999) A glimpse of the boat which made these voyages can be seen at the Silendra Dynasty's carvings on the Borobudur.[31] The combination of increased trade demands and did not only lead to the emergence of larger urban settlements in Southeast Asia, but also played a large part in development in the entire Eastern Indian Ocean.

[31] These stone carving scenes contain sophisticated ocean-going vessels with balance-lug sails.

Chapter V
ANALYSIS AND DISCUSSION

Economic Wealth and Trade

Undeniably "commerce" played a huge role in defining the identities Suvarnabhumī and its sphere of economic interaction. Unlike the usually close market development of agrarian societies such as those in the Mediterranean Basin, the Bay of Bengal Sphere of Interaction's advancement was heavily induced by trade. Wheatley suggested that "at about the beginning of the Christian era, South-East-Asia was occupied by a mosaic of societies and cultures...within a common recognisably South-East-Asian trajectory of cultural evolution. Organisationally, these communities ran the whole gamut from bands through tribes to chiefdoms, including strongly developed paramount exhibiting substantial degrees of centralised direction, hereditary hierarchical statuses, and dominantly redistributive modes of economic integration not far removed from those of true states." (Wheatley, 1983) This was a fact not only exclusive to Southeast Asia, but also South Asia, in particular Eastern India. The Ganges delta did not enter its early medieval phase until 600CE, before that early historical urbanisation in Eastern India began around 300 BCE until 600 CE. The Sunga-Kusāna phase (circa 200 BCE to 300 CE) was a period of radical changes where Indian settlements began using drainage system and burnt bricks for residential building constructions. Bengal went through a period of growth and development in trade and communication. Chandraketugrah and Tāramlipta sprang almost instantaneously to urban life in the Early Historical Period; most scholars attribute this to overseas travel and trade. The Ganges was a new commercial hub in the 3rd century CE. Like earlier Southeast Asian settlements, buildings were made of wood, bamboo, and tiles, with mud wall and mud plinth. The introduction of burnt brick and stone structure came with the Indo-Roman trade contact. Like Chandraketugrah and Tāramlipta, many early Indian cities in the Ganges would display twin like function, with one city operating commerce, and the other politics and religion. The same model is believed to be applicable in Dvaravati sites, such as the relationship between U-Thong and Nakorn Prathom, where the former operates trade and the latter is a religious centre. (Wallipodom, 2002)From the

Kathāsaritsāgara, we know that Tāramlipta operated a constant trade route with Sri Lanka and Southeast Asia, namely Suvarnabhumī and Suvarṇadvīpa. In fact, its wealth was "pre-eminently" due to rich merchants who traded with these locations. (Majumdar: 345) This suggests that early recognition of the Southeast Asian coastline, the notation of Suvarnabhumī, and early cultural inspirations in Southeast Asia, could have come from trade activity with port cities in the Ganges. This also includes religious activities and exchanges, which would explain accounts of the Buddhist merchant Gāvampati mentioned in the literature section. Ties between the Bay of Bengal settlements and maritime activity are so strong that the Maukharī king, Īsānavarmana described the inhabitants of the Ganges as 'living by the sea' in his Harāhā inscription. This was later repeatedly suggested by other Pala and Sena manuscripts such as those by Raghuvamśa Kalidāsa[32] (Ray, 1994) Tāramlipta terracotta style is known to be inspired by Egyptian art style, especially the proto historic archaeological pot and vase found from areas around Tamluk. The Oxo-Caspian[33] trade route that was mentioned by Pliny and Strabo carried goods to Europe, and Tamluk lies at the eastern end of this trade route. By the time Fa-hsien visited the city, he stated that it was constantly trading with Sri Lanka, Persia, Arabia, Ethiopia, and the Byzantine Empire. Roman roulette wares and fashionable Roman terracotta sprinklers were also found in Tamluk, vice versa Tāramlipta artisans were exporting silk and cotton textiles to Egypt and Rome. Merchants from Tāramlipta were importing precious goods such as tortoise shells and gold from Suvarṇadvīpa and selling them westwards. (Ray, 1994) These western civilisations would have played a large role in local luxury preference and art style, much like the introduction of Sari into the region by the Greco-Bactrian Empire. The flow of these cultural styles would have also moved westward into Southeast Asia.

Economic Worth

To determine the value of Suvarnabhumī and link its "wealth" credentials to Southeast Asia, it is perhaps easiest to weigh its value quantitatively by the commodity

[32] Sanskrit Mahakavya, which contains 19 cantos of stories relating to the Raghu dynasty.
[33] The Oxo-Caspian trade route ran from Peukelaotis (Puskalāvatī) through the Indus cities of Taxila, Jihlam, Beas, Sutlej, Jamna, Hastināpula, into the Ganges cities of Rhodopha, Kalinipaxa (Kanyakubja), Prayāga, Pātaliputra, and ending at Tamluk (Tāramlipta).

value. We know from Indic literatures and historical record that minted gold and silver coins were only popular means of trade occasionally throughout history, but it was never a constant medium. During the height of the Sunga Culture (185-73 BCE), gold and silver coins were popular, but its usage was not extended into the Bay of Bengal. While reintroducing the gold and silver coins with additional copper coins was attempted by the Guptas later on, its popularity never sustained. This was due to the fact that these rare minerals were not abundant to the Indian Peninsula geography; it had to be imported from various regions and outside sources. Thus, cowries and beads became a popular medium of exchange, acting as a more popular international currency system. These exchange value are based value in exchange for gold, which suggests that gold base banking accountancy may have existed in Asia much earlier than believed. In fact most commodities are compared to the value of gold "dinar". As different authorities come to power, the terminology used for referring to gold and silver varies, such as silver coins, which are either referred to as "rūpaka" or "mudrās". We know the value of each rūpaka from the Vaigram edict, which states that eight rūpakas equal half a dinar; hence, a dinar is equivalent to 16 rūpakas. During the Reign of Kumāragupta I (415-455 CE), a price system by the name of "māsas" was introduces, and measured against rūpaka and dinar, coins became less popular as trade grew. Coin valuation lost popularity over time, and cowries and barter became the prominent means of exchange. This system was used well into the 12^{th} century CE where another measurement record was made in the Līlāvatī of Bhāskarācāya. Silver was measured as "drahma" and gold was referred to as "niskar". The exchange table can be summed as follow:

Table 2: Exchange Rate Value

	Dinar/Niskar	Rūpaka/Mudrās/Drahma
Dinar/Niskar	1	$\frac{1}{16}$
Rūpaka/Mudrās/Drahma	16	1
Māsas	117.8 to 127.3	22.8 to 36.2
Cowries	1024	64
Kākinī	1024	64
Pana	256	16

Data credit: (Ray, 1994)

According to Pliny the Elder, half a case of Ganges pepper cost fifteen gold dinars, and the annual value of Indic textiles was one hundred thousand mudrās. Yet, we know that black pepper are either available from Southern India or from Southeast Asia in ancient times, so we can infer that by "Ganges pepper" it was probably imported pepper from nearby trading partners such as Suvarnabhumī and Suvarṇadvīpa, but relied on large ports in the Ganges as a commercial hub for goods exchange.

By looking at the Vaigram edict's value for the dinar and comparing it to latter pricing during the reign of Kumāragupta I and the Līlāvatī of Bhāskarācārya inscriptions, we can see that prices were quite constant throughout the period and might have varied slightly depending on commodity value, which makes inflation rate steady and subjected to only exogenous conditions. Assuming that drahma are rūpaka is the same amount of weight, the value of gold never increased. The accuracy of the weights of each dinar was susceptible to measurements technology in the past. Thus, we cannot assume a constant standard of measurement but rather "guesstomates" of the actual gold value. Yet, in relative terms, these data also demonstrates the approximate range of income wealth and living expenses in the respective time. The conversion between rūpaka and drahma to dinar demonstrates that there must have been a constant supply of gold over centuries. However, the same case does not apply when the conversion was placed on the māsas, which was used during the Gupta Empire, which came after the introduction of rūpakas.

If we take the conversion:

1 dinar ≈ 117.8 – 127.3 māsas

1 rūpaka ≈ 22.8 – 36.2 māsas

The minimum bracket of the price of a rūpaka per dinar would be:

$$\frac{117.8}{22.8} = 5.17 \text{ rūpaka per dinar}$$

The maximum bracket of the price of a rūpaka per dinar would be:

$$\frac{127.3}{36.2} = 3.52 \text{ rūpaka per dinar}$$

Therefore, the ratio of rūpakas to dinar would fluctuate between 3.52 and 5.17.

The valuation data provided demonstrates that the previous constant price assumption may have not been true, and that the market performance and gold supply production may have altered the price of gold, at least this is seen throughout the Gupta period, which had a strong cultural presence in Southeast Asia and its early statehood. This means the price of pepper and other commodities exported from Southeast Asia to Indian Peninsula, and assuming further on to Western markets would have varied also since gold is the determinant of wealth and purchasing power. Nevertheless, inflation was relatively low when compared to the modern economic scale; price fluctuation that would have affected wellbeing would have heavily involved prices of agricultural output rather than trade products. If the Indian market such as Tāramlipta, and East Bengal were major trade markets of the past, then price fluctuations in the main market would have spilled over to trading emporium like Takuapa and Ban Don Tha Phet also. Merchants, who operated under the merchant guild structure, dominated trade routes and navigation in the Indian Ocean, these individuals may seek to profit from the price fluctuation between markets. The relatively free market structure of Ancient trade, especially in emporiums within Southeast Asia, where there are low signs of assertive central authority, would have allowed commerce

to grow rapidly. At the same time, without regulations merchant guilds would have dominated the market. This is also true for the Indian peninsula and the Ganges delta, where commercial profession was so successful that it was reported that during the fifth to eight century CE, cities council would include representatives of the merchant guilds into their policy making process. An account of land grant and sales meeting included, "two royal officials, two traders and merchants, and one member of craft guild". Powerful guild formations and high influences would mean that prices were less determined by supplier, and more dependent on trade cartels. If the Southeast Asian market depended solely on ships and traders from South Asia, then producers of export goods would have suffered low pricing schemes imposed on by guild traders. However, evidences from archaeology indicated that trade was not conducted by South Asian merchant guilds alone, but also by Southeast Asians.

The presence of spices and Southeast Asian cultural artefacts in the Indian peninsula, as well as the spread of more complex goods like technology and burial beliefs across the Indian Ocean provided counter evidence that trade was dominated by Indian Peninsula agents and alone. Yet, the popularity of Indian artefacts and western good, especially for local power groups, would have made Southeast Asia a desirable demand market for high valued products of the west. If alluvial gold and silver were indeed exported to East Bengal from Southeast Asia, like indicated in the description of Suvarnabhumī and Suvarṇadvīpa, then the producers of these currency valued material would have acquired large capitals, much like the oil traders of modern times, and simultaneously became powerful purchaser. To markets where political development has saturated itself into empire formations, the expansion of political and religious ideology into a wealthy market with low central culture density would have made sense to Indian traders seeking more grounds for production and political power.

Past labelling of Most economic literature often perceives Gross Domestic Product (GDP) as a relatively modern idea. It is considered nonexistent up until the latter part of the middle ages, which resulted in a drastic GDP surge during the Industrial Revolution. The absence of ancient economic accounting implies that economic development was

zero and unaltered for thousands of years. Recent development to measure audit the ancient world economic picture was triggered by Italy, and as a result it demonstrated the high share from manufacturing during the first century CE. Similar pattern occurred throughout the world during the early Christian era, this could be attributed to the expansion of trade network, which created a larger consumer market for manufacturers from both the east and the west, and period of relative peace across both Europe and Asia. To date, there are insufficient data to extrapolate a precise quantitative data analysis of Southeast Asia's GDP. This will have to be developed by assessing agricultural production and trade profit through luxury production such as beads and bronze. Some value may also account from foreign goods purchased, which may have better accounting for its price such as carnelian lion beads, roman bronze ware, and ivory combs. With the absence of recordings in Early Southeast Asian society, the feasibility of calculating GDP, which typically divides into consumption, investment/ savings, public expenditure, and net export, is likely difficult. Although some data could probably be found from foreign accounts that annotated import quantities, the value would probably have already included surplus value from transportation from Southeast Asia, which makes actual value indistinguishable. Qualitatively, we can state that the period of 300 BCE to 3rd century CE marks a surge of GDP in the Bay of Bengal, which led to many state developments in Eastern India and Southeast Asia. Due to migration, which may have also caused more trade connectivity and trade surplus, population ratio may have surged around the Bay of Bengal, yet, the formation of cultures like Dvaravati and Sri Vijaya in the following period indicated that human inflow might have enabled greater productivity than capital deficits. At the core of GDP indicator, is its concept of choice. In an age where choice becomes an excess burden in some places, this idea might be hard to grapes, but for the ancient world where there are scarce resources and slow goods production rate, trade may be crucial to social survival. From Southern Indian cotton that were sent to China to tin ores that were used for bronze production and tool making, these goods were necessary to social advancement. The reciprocity of trade that emerged as a source for development on both sides of the Bay of Bengal provided a foundation for development of large trade harbours that grew into

metropolis along the western coasts of Southeast Asia and East India. Moreover, greater productivity, such as the production settlements of beads and goods around Late Bronze Age sites in Mainland Southeast Asia, meant greater income and well being. For sites early Late Bronze Age settlements like Takuapa, U-thong, Pahang, Kedaha, and several proto-Pyu cities, this meant trade bought along luxury consumption through choice. People were able to access more technology and welfare, such as Roman oil lamps and ivory combs. Archaeological surveys from early settlements suggest that despite the constant volume of trade and agricultural production, a trait that was shared in prehistoric Southeast Asia and Neolithic India, storage was not a large part of the economic structure prior to industrialisation. This means that quantity supply was perfectly inelastic, and that price was likely determined by demand. Given that literature describe cities along the trade network as "living by the sea" and the trade, it would be fair to assume that a large proportion of societal income and socioeconomic identity was formulated around trade and the consequences that evolved from it. This creates a sphere of interaction, which is referred to by some scholar as the Bay of Bengal Interaction Sphere (Hall, 1985), explained simultaneous adoption of cultural and economic patterns between trade partners. By laws of reciprocity, the expansion of states in Eastern India would not have had the same momentum if its Southeast Asian counter part did not possess similar patterns of development in the early Christian era.

Conclusion and Discussions

Drawing on the Indian, Chinese, and Classical literatures, the term Suvarnabhumī and Suvarṇadvīpa, which were linked by etymological definitions of the Sanskrit name by scholars, we find that most names affiliated to Southeast Asian settlements would often reflect a component of wealth and exotic description of the inhabitants. There are no clear proofs that *Suvarnabhumī* (Sanskrit), *Chryse* (Greek), and *Chin-Lin* (Chinese) are the same location, but we can infer that somewhere in Southeast Asia there was probably a gold or gold like image to present to inspire distant travellers with such names. Certainly, all those whom travelled to these lands would go back and earn a

surmountable degree of wealth, legendary tales would often includes stories of dangers and thieves, which makes the image of the lands almost mythical. Yet, when compared against archaeological evidences like the availability of precious ores and the details beyond the specific Suvarnabhumī and Suvarṇadvīpa found in sources like the Geographia, these images became more realistic. The trail of spices, particularly pepper, cinnamon, and cassia, which were considered of gold like value in the past, leads to several islands in Southeast Asia. Description of the Southeast Asia given by Ptolemy, in regards to its trading emporia, suggest that metaphors concerning wealth and gold was not exclusive to Chryse and Chryse Chersonese, but also several small island groups. Archaeologically, we find that regional trade networks may have extended earlier into the Bronze Age than the early Christian era. These local networks involve trade of degradable goods, such as food, spices, textiles, as well as non degradable goods like bronze drums and precious stone and glass beads. Trade network conducted by local traders within Southeast Asia carries spices, bronze casting techniques, urns burial traditions, and beads across the sea to Eastern African shores. The same trade network links with the Indo-Roman trade route, Oxo-Caspian trade route, and the Major Silk Road, which bought ideas from the Roman, Greeks, Parthians, and Central Asian civilisation into the Ganges delta and further east into Southeast Asia.

The surge of wealth in the Bay of Bengal Sphere of Interaction occurred during 300 BCE, which marks the expansion of western cultural presence into South Asia. Simultaneously, urban conditions within the Bay of Bengal began to adopt western style architecture such as burnt brick buildings. The strong contact between Southeast Asian seafarers and Eastern South Asian cities enabled the same capital and cultural presence to flow further eastwards. Despite its wealth, the Southeast Asian route was dominated by pirates, thieves, and merchant guilds, which probably had to deal with local leaders for protection against mugging. This would have driven the price of commodities up since risk for investment into the trade route was high and sources were scare. Moreover, several cities in Southeast Asia seemed to have served as emporiums or trade stops for sailors, these trade cities are notorious for housing every kind of goods

from both close and distant lands. The market structure seem to suggest that trade was loosely regulated and often agreed upon by trading parties. Inflation and exchange rules would have been adopted from the major trade route that was already relying upon barter and cowries for trade. Yet, the exclusive nature of Southeast Asia's geography provided not only resource and material wealth for traders, but also would probably profit from trading stops from India into China. The same logic could be inferred from the rich trading cities in the Taklimakan Desert that served as trading stops between the West and China. Although Southeast Asian trading cities like Suvarnabhumī and Suvarṇadvīpa and many other settlements, which grew into elaborate cultures at later date, grew from the benefits of trade, it must have been self sufficient to a degree or at least sufficiently trading with nearby settlements to not diminish with the decline of trade in the Bay of Bengal with the disappearance of the Greeks and Roman in the early Christian era. Alternatively, the effect of westward expansion might have triggered a self sustainable trade network within the Bay of Bengal Sphere of Interaction, and provided Eastern India with the wealth to buy commodities and expand its cultural sphere eastward, especially into Southeast Asia. Nevertheless, the role Southeast Asia played as a middle entity connecting trade between regions and sea to land should not be taken lightly. Producing invaluable goods in the ancient trade route meant, it would have not only accumulated tremendous amount of wealth, but would also mean that the goods produced or transported through the region shaped the way development takes place in other places of the world. Spices alone would have made a good argument in terms of triggering a surge of demand for eastern product, to which merchants operating in guilds that probably included Southeast Asian merchants, benefited greatly.

Furthermore, by evaluating the impacts of the traded goods, such as alluvial gold, spices, and silk, which had high commodity value in ancient trade. We can incur that wealth accumulated during the phrase of Suvarnabhumī and its network entities would have acted as a foundation and explain the sudden emergence of large cultural centres across Southeast Asia such as Dvaravati and Sri Vijaya. By eliminating the

colonial view of centralised state we can see a free market, loosely regulated trade network that spawned large trading wealth, which probably became the foundation for the construction of stone monoliths during the latter cultural age. It is also important to acknowledge that these trading cultures did not disappear but rather merge into dominant art form culture which scholars have come to categorise as different cultural centres and centralised state entities. Early cultural centres in Southeast Asia did not lose its "Suvarnabhumī" characteristics, many of these cities such as Kubua, Sri Kshetra, and Palembang, continued as a centre of regional and international trade. Hence, Suvarnabhumī did not disappear or become a mythical entity but simply morph from a generalised trading destination name in Indic literature to labelled cultural centres. This economic characteristic is equivalently true when reviewed against the mandala political structure, which persevered into the 20th century despite the rise and fall of various cultural centres.

The role Suvarnabhumī play is only introductory to the network of ideas, producers, consumers, and resources, which linked Southeast Asia together as an economic community in the Late Bronze Age. Combined, the entire network of supply chain of high value goods made the trade emporium that was Suvarnabhumī worthy of its "golden" recognition. In a way, the wealth that defined Southeast Asia's early identity became a factor in influencing the form of its political and social structure. Political practices such as the practice of benevolence protector, or even divine obligation for ruling with justice became a leeway that allowed trade to prosper. Centralisation of seizure would have conflicted with the nature of trade emporia, which is more free market. It became rational for local elites to practice what was convenient to the accumulation of wealth, including expanding "network" or influences, without necessary direct control. These are some of the examples of ideas that were established during early trading period that became an identity inheritance for latter rulers of cultural centres and cities.

In conclusion, the names Suvarnabhumī and Suvarṇadvīpa were more than specific locations that bought wealth to traders; they were part of an extensive regional

trade network of resources and products that were precious and crucial to the Ancient World. These resources explain the connotation of wealth associated to these locations. Studies on other locations associated with these two locations in ancient literature have not been fully investigated, even in Indic literature Suvarṇadvīpa was simply a direction that was filled with several cities and kingdoms. By looking at the quantitative worth of trade and commodities we may be able to draw a clearer picture of early Southeast Asia. There are many economic works to be done in the field of Southeast Asian history, and the productivity of settlements such as Ban Don Tha Phet in relative to its population is a potential field of further studies, which would actually answer whether it was traders who benefited more from the wealth of trading with Suvarnabhumī or were the locals equivalently rich. We now know that many large trading cities enjoyed the economic benefit of trade in Southeast Asian goods, but there is little to conclude on the span of wealth of particular trade emporiums like Takuapa and Kedah. For now, we can safely say that the reference to these locations is a trade direction in Southeast Asia, that harboured many expensive goods in antiquities, and that these locations existed in the past and are certainly not a subject of myth. As to who operated them and what are the extents of wealth in comparison to known trading cities like Tāramlipta, that is a question left for further investigations.

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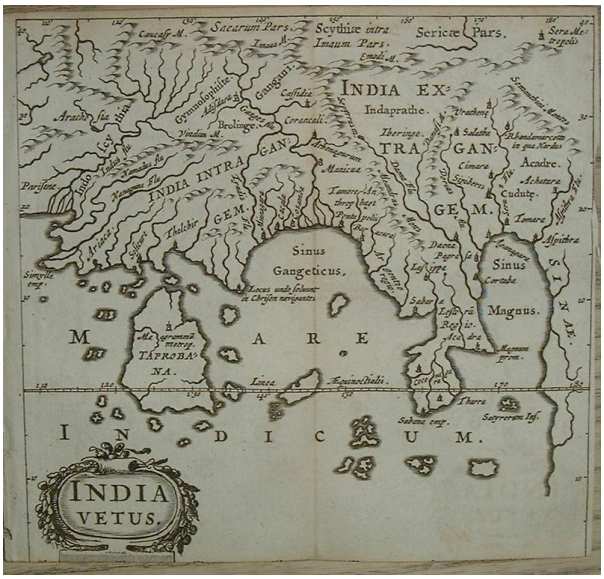
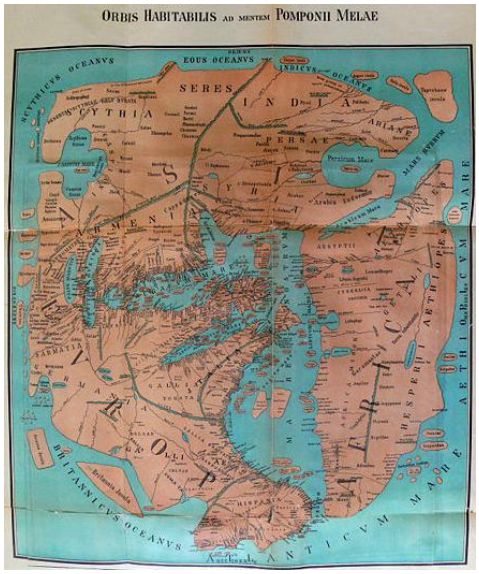
APPENDIX A

Maps of the Ancient World



Early Maps of Asia, Italian Cartographer 15th century

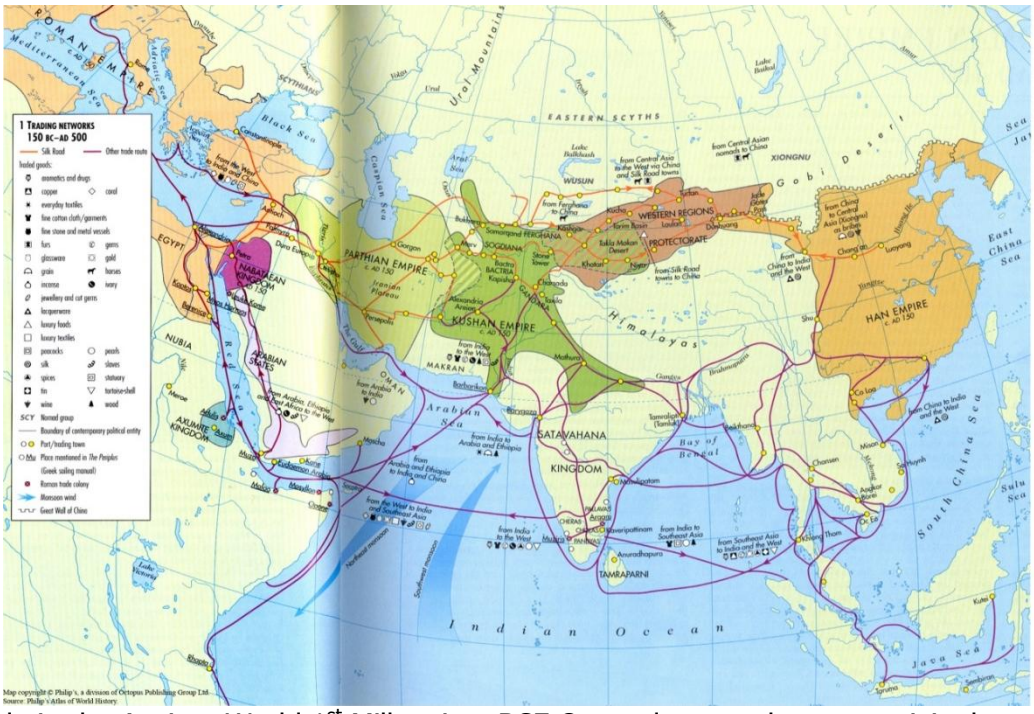


Map of the World According to Pomponius Mela, contains Southeast Asia

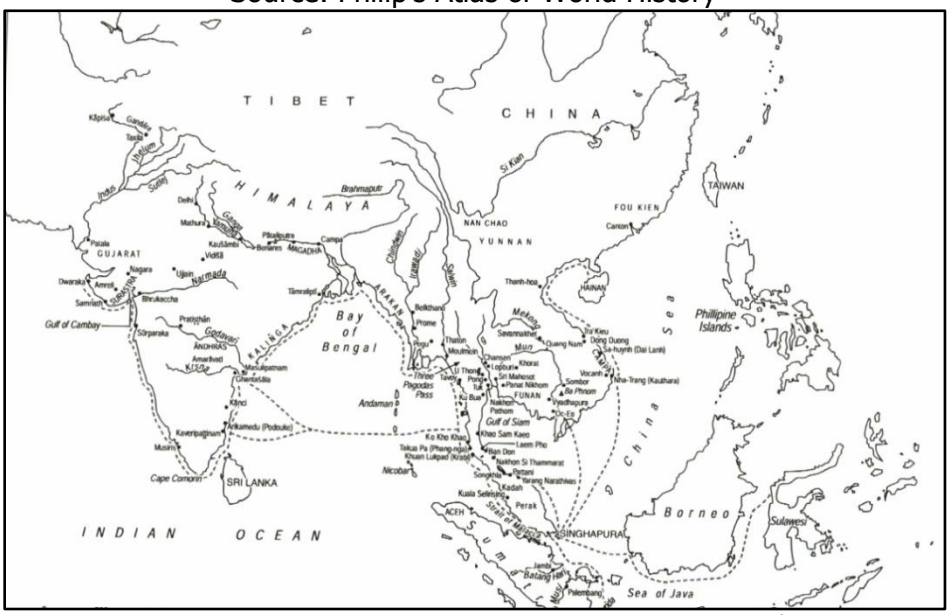
Portion of the Ptolemic World Map Redrawn by European Cartographers (Suárez, 1999)

Sumatra by Giovanni Bautista (1565)

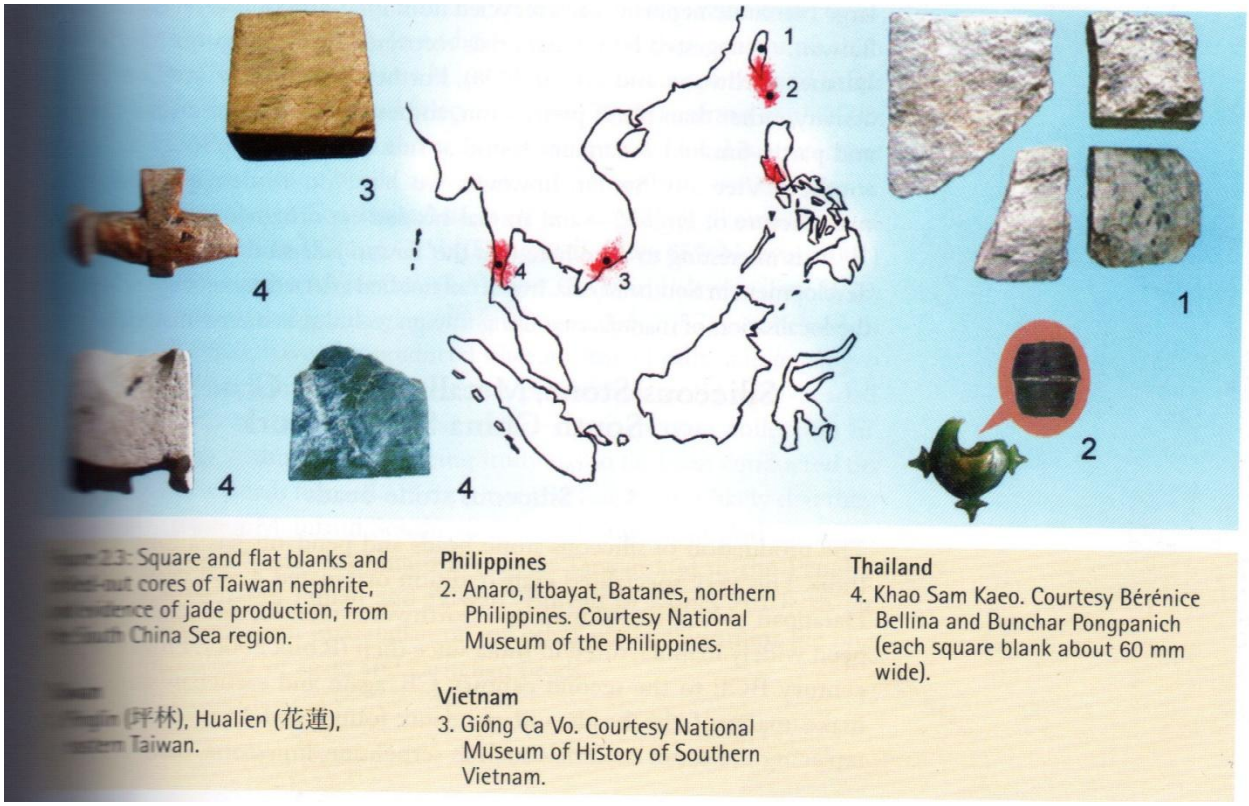
APPENDIX B
Maps of Ancient Trade Route



Trade in the Ancient World 1st Millennium BCE Onwards, note the connectivity between Southern and Southern Maritime Silk Road that runs through Southeast Asia
Source: Philip's Atlas of World History



Maritime Trade through Southeast Asia (Bay of Bengal Interaction) 5th Century CE Onwards
Source: Phasuk Indravuth, Archeaology of the Early Buddhist Kingdom of Thailand

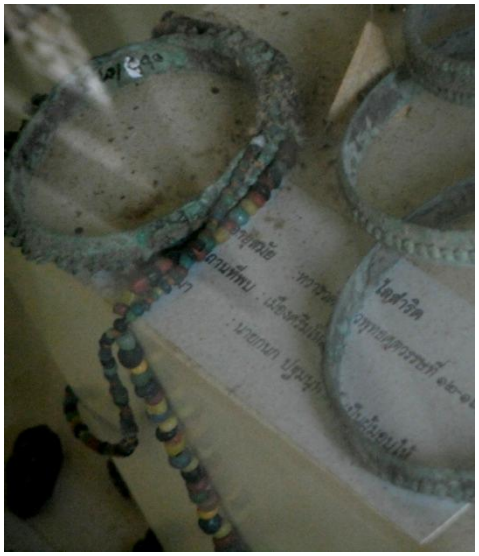


Raw Material Transfer Taiwan-Southeast Asia During the Bronze Age
Materials are quarried from Taiwan and transported for processing in Vietnam and Central Thailand, then dispersed throughout Southeast Asia along with the Bronze Drum Cultures
Source: (Hung and Bellwood, 2010)

APPENDIX C
Artefacts

Early fashion of women from Taramlipta, free of Sunga-Kusuna cultural influences (left), and Early Dvaravati fashion from Nakorn Prathom reflect similarities in fashion preference.

Bronze Drum found in Samui Island, Thailand



High Tin Bronze Jewelleries and Indo-Pacific Beads common at Early Southeast Asian sites. (From Sri Mahosot)

BIOGRAPHY

Pacharaporn Phanomvan Na Ayudhya (born 12 January 1987) graduated from the Faculty of Economics, Chulalongkorn University in 2010. She was an assistant researcher in Sufficiency Economy Philosophy; and Health and Environmental Economics Policy at Chulalongkorn University. During her studies, she engaged on several youth projects for the World Bank, particularly on AIDS awareness, and child prostitution. During her junior year, she spent an exchange term at Tilburg University, studying competition and deregulation policies, health economics, and comparative constitutional law. Her previous academic works include articles on politics, education, and economic development published in various academic conference proceedings. In addition, she also spear headed international academic debate activities, ending her public speaking career as the first Thai National in the elimination rounds of the Worlds University Debating Championship, and convenor of an Asian-wide tournament. In 2010, she was selected by the Ministry of Foreign Affairs as the Youth Delegate of Thailand to the United Nations General Assembly in New York, where she pushed forward agendas on sustainable development and oriental wisdom.

Pacharaporn joined the Chulalongkorn University Southeast Asian Studies Masters Program after completing her undergraduate degree, and now works as a research assistant in economic history at the Faculty of Economics, focussing on 19th-20th century Thai Economic History. Her works involve gathering, reviewing, and data archiving economic-related primary sources from the Rattanakosin Era. She also works part time for the Good Governance for Social Development and the Environment Institute (GSEI).

Her current personal projects, to be pursued in doctorate studies, include: reviewing economic thoughts and its applications in Southeast Asia, mapping out very long-run economic growth in Thailand and Southeast Asia, and completing historical picture of Southeast Asia's role in the Southern Silk Road and Southern Maritime Silk Road.