Guns for the King: Dutch-Siamese Firearms Transfers, 1656-1709

Huber, Philipp

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Philipp Huber

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Thesis Supervisor: Prof. Dr. Jos J. L. Gommans

Second Reader: Dr. Tristan Mostert

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Cover image: Modern mural depicting the Revolt of the Makassarese in 1688 on the walls of the Ayutthaya Historical Study Centre in Ayutthaya, Thailand. Picture taken by the author.

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Introduction

The influx of European weapons is an oft-mentioned topic in the historiography of early modern Southeast Asia.[1] But studies which investigate in detail how this arms transfer actually took place are still very rare.[2] This leaves many aspects of this crucial trade shrouded in uncertainty. Scholarly opinions on this topic therefore come in a wide variety.

There are those that see the appearance of European weapons in Southeast Asia as crucial for its early modern history, such as Anthony Reid and especially Victor Lieberman.[3] Lieberman stresses the impact these firearms had on the centralization and enlargement of states, especially on the Southeast Asian mainland. Michael Charney on the other hand, and following him also Peter Lorge, sees a much smaller impact for European firearms. They were integrated into the existing patterns of warfare, without fundamentally transforming either warfare or the states that used the firearms.[4]

Differences just as large exist when it comes to the ease with which Southeast Asians could access these European weapons. Reid found that "to acquire the new weapons by purchase and eventually by manufacture was not difficult" compared to adopting the new way of fighting they brought.[5] Lieberman argued that the difficulty of acquiring these weapons differed very much between states. The large states at the coast, with large trade revenues and many foreign merchants visiting, had a much easier time buying European guns than the smaller

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[1] Anthony Reid, *Southeast Asia in the Age of Commerce 1450-1680. Volume One, The Lands below the Winds* (New Haven: Yale University Press, 1988); Anthony Reid, *Europe and Southeast Asia : The Military Balance* (Townsville: James Cook University of North Queensland, 1982); Leonard Andaya, 'Interactions with the Outside World and Adaptation in Southeast Asian Society, 1500–1800', in *The Cambridge History of Southeast Asia: Volume 1: From Early Times to c.1800*, ed. Nicholas Tarling, vol. 1 (Cambridge: Cambridge University Press, 1993), 341–401; Victor Lieberman, *Strange Parallels: Southeast Asia in Global Context, c. 800-1830* (Cambridge: Cambridge University Press, 2003); Peter Lorge, *The Asian Military Revolution: From Gunpowder to the Bomb*, New Approaches to Asian History (Cambridge: Cambridge University Press, 2008); Michael W. Charney, *Southeast Asian Warfare, 1300-1900* (Leiden: Brill, 2004).

[2] Leonard Blussé, 'Van Snaphanen En Edelstenen : Briefwisselingen Tussen de Hoge Regering Te Batavia En Het Koninkrijk Siam, 1769-1809', in *Apitaal, Ondernemerschap En Beleid : Studies over Economie En Politiek in Nederland, Europa En Azië van 1500 Tot Heden : Afscheidsbundel Voor Prof. Dr. P.W. Klein*, by C. A. Davids, Fritschy, Wantje, and Loes Van der Valk (Amsterdam: NEHA, 1996), 467–82; Hoang Anh Hoang Anh Tuan, *Silk for Silver: Dutch-Vietnamese Relations, 1637-1700* (Leiden: Brill, 2007); and Jose M. Escribano-Páez, 'Diplomatic Gifts, Tributes and Frontier Violence: Circulation of Contentious Presents in the Moluccas (1575–1606)', *Diplomatica* 2, no. 2 (2020): 248–69 should be mentioned as exceptions, although neither of these studies had the arms trade as its central topic.

[3] Anthony Reid, *Southeast Asia in the Age of Commerce, 1450-1680. Volume Two: Expansion and Crisis.* (New Haven: Yale University Press, 1993), 219–33; Lieberman, *Strange Parallels*, 48.

[4] Charney, *Southeast Asian Warfare*, chap. 'Firearms'; Lorge, *The Asian Military Revolution*, chap. 'Southeast Asia'.

[5] Reid, *Age of Commerce I*, 128–29.

and more isolated inland states.[6] This provided a crucial advantage to the coastal states, aiding the subjugation of their inland neighbours.

But there are scholars that consider the acquisition of European-style firearms to have been a problem. Leonard Andaya argues that as simple matchlock muskets were replaced with flintlocks in the seventeenth century, Southeast Asian craftsmen were unable to keep up with this more complex weapon. Local production therefore declined, creating a dependency on European imports. This was an issue, as Europeans often withheld advanced weapons. "European governments" even "explicitly forbade the transference of knowledge in the production and the use of firearms." The few Europeans who nonetheless worked for Southeast Asian rulers usually did not have sufficient skills to overcome all of these issues.[7] Although Andaya offered no proof for any "explicit" bans, Lorge agrees with his position.[8]

More specifically, in her study on the Dutch East India Company (VOC) and Burma, Wil O. Dijk has claimed that "[with gunpowder], as with guns, the Europeans were unwilling to provide the Southeast Asians with the means to challenge them, with predictable dire consequences".[9] In the same vein, Gerrit Knaap asserts that the VOC "attempted to curb the diffusion of its relatively advanced weaponry to indigenous peoples and potential enemies."[10] In one of his earlier publications, Reid had likewise claimed that "the VOC took a firm line against selling effective weaponry to potential Asian enemies", something which the English and Portuguese had less qualms about.[11]

In his thesis, which focused on cannon, John Verbeek has painted a somewhat more nuanced picture. He contrasted an early phase, in which the VOC was establishing itself in the Indies through conquest and willingly gifted cannon to gain allies and to strengthen their military power, with a later phase in which it tried to restrict the circulation of cannon as much as possible, especially in the Indonesian archipelago. However, he left a considerable gap between these two phases, with the first ending around 1650 and the second seemingly starting around 1730.[12]

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[6] Lieberman, *Strange Parallels*, 256–58.
[7] Andaya, 'Interactions', 386.
[8] Lorge, *The Asian Military Revolution*, 90.
[9] Wil O. Dijk, *Seventeenth-Century Burma and the Dutch East India Company 1634-1680* (Singapore: Singapore University Press, 2006), 47.
[10] Gerrit Knaap, *Genesis and Nemesis of the First Dutch Colonial Empire in Asia and South Africa, 1596–1811* (Leiden: Brill, 2022), 302–3.
[11] Reid, *Military Balance*, 3.
[12] John R Verbeek, *Onder Faveur Van 't Canon: VOC-Artillerie, 1602-1796: Technologische Vernieuwingen, Logistiek En Beleid* (Leiden: Sidestone Press, 2022), 151–52.

The role European weapons played in Early Modern Southeast Asia, and how easily they could be acquired by Southeast Asians, is therefore a topic on which no consensus exists. Only the fact that firearms were avidly adopted by Southeast Asians, without however reaching the ubiquity and sophistication they attained in Europe by the end of the eighteenth century, is undisputed. Especially the VOC seems have tried to prevent this. The empirical grounding of these positions is dubious, and often unclear.[13] It is therefore the purpose of this thesis to shine light on the trading of European firearms in early modern Southeast Asia.

This thesis will tackle this issue by studying the transfer of European firearms technology from the VOC to the Siamese kingdom of Ayutthaya (modern Thailand) in the period from 1656 to 1709. It will do so by answering a set of interrelated questions: Why was Ayutthaya interested in importing firearms technology from the VOC? How was this transfer organised? How did changing political circumstances influence these transfers? Why was the Siamese state unable to arm its troops as comprehensively with firearms as was the case for the VOC forces at the same time?

Sources and Method

The study of early modern Ayutthaya is hampered strongly by the scarcity of Siamese sources, few of which survive. While Ayutthaya was a somewhat bureaucratised empire, the destruction of the capital city by the Burmese in 1767 led to the loss of its administrative records. Siamese sources from the period therefore mainly consist of religious literature and royal chronicles, which were however not copied verbatim but received changes to them when copies were made. This means that many of the surviving chronicles which cover the Ayutthaya period contain anachronistic sections, which can usually be explained by the changed situation in which they were written.[14]

While domestic sources for Early Modern Siam are scarce, Ayutthaya was a very cosmopolitan city which attracted a wide range of foreigners, among them Europeans from many different countries. The Portuguese were initially the most important European group in Siam after their conquest of nearby Malacca in 1511. However once the Dutch entered Southeast Asia at the beginning of the 17th century they assaulted Portuguese positions everywhere and this included their presence at the royal court of Ayutthaya. The VOC was able

[13] Andaya for instance does not at all indicate what he bases his opinion of the constraint of the arms supply on. Dijk and Knaap on the other hand seem to have transformed single occurrences found in the sources to a stated and consistent policy by the VOC.

[14] Nithi ʻĪeosīwong, 'The History of Bangkok in the Chronicles of Ayutthaya', in *Pen and Sail : Literature and History in Early Bangkok Including the History of Bangkok in the Chronicles of Ayutthaya*, Pen & Sail (Chiang Mai: Silkworm Books, 2005), 287–343.

to ally itself with the Siamese king, who expelled the representatives of the Portuguese state from the country and promised the Dutch support in their fight. From then on, the Dutch remained the most important group of Europeans in Siam, notwithstanding the meteoric rise of the French in the 1680s when they had the support of the Greek Prime Minister of Ayutthaya, Constantin Phaulkon. By not involving itself in the domestic politics of Siam, the VOC managed to remain in the country with only short spells of absence, from 1608 until 1765, when the company finally gave up its presence in anticipation of the Burmese conquest and destruction of Ayutthaya.[15] More than 150 years in Siam have created an archive that is unmatched in its detail and coverage. Yet, one that was of course produced by outsiders, whose understanding of all things Siamese they witnessed may be questioned. At the same time, a large amount of the writings produced by the VOC in Ayutthaya are lost to us. This includes much of the bookkeeping, as well as most of the diaries kept in the trading post, which registered daily events and which could provide very interesting insights into the running of the Company business, as well as of Siamese events.

There is however also a large corpus of documents created outside Ayutthaya that concern it. The local representatives of the VOC informed their superiors in Batavia and Europe of developments in Siam and its surroundings. While the day to day business was left to the director (*opperhoofd*) and his council, the diplomacy with Siam was controlled from Batavia, the capital of the VOC in Asia. Usually researchers working on Dutch-Siamese contact rely mainly on the documents produced in Siam, which certainly give the most informed insights about what happened there. The two academic monographs that study VOC-Ayutthaya relations both do so from the perspective of the local trading post.[16] But the wider policy towards Siam was made in Batavia and is under-researched in the literature.

A so far underused source are the diplomatic letters exchanged between Asian rulers and the VOC government in Batavia. These letters have survived mainly in the VOC archive, not in the archives of the other country. Even though in most cases only the Dutch translations made by the VOC remain, these letters can still provide insight into the diplomacy carried out

[15] The new Siamese court re-established contact with the company soon after. While the company was unwilling to set up a trading post in the new capital of Bangkok, trade between the company and Siam resumed through Chinese traders sailing between Bangkok and Batavia. Blussé, 'Van Snaphanen En Edelstenen'.

[16] George Vinal Smith, *The Dutch in Seventeenth-Century Thailand*, Dutch East India Company in the Kingdom of Ayutthaya, 1604-1694 (DeKalb: Northern Illinois University, 1977); Bhawan Ruangsilp, *Dutch East India Company Merchants at the Court of Ayutthaya: Dutch Perceptions of the Thai Kingdom, c.1604-1765* (Leiden: Brill, 2007). Bhawan for example only included three volumes of the letters sent from Batavia in her bibliography, compared to dozens of volumes with letters sent to Batavia.

by various Asian states.[17] Beyond diplomacy, the letters often contain information on domestic and foreign politics, trade, disasters, and various other topics. In the letters exchanged between the VOC and Ayutthaya, trade received the most attention. This trade includes the exchange of presents between both parties, which this thesis will argue was the channel through which the import of European weapons into Siam was organised.

The diplomatic letters are the most important sources for this thesis. They are used to gauge Siamese demand for foreign firearms technologies, as well as the Dutch responses to these demands. As necessary, they are enriched with letters exchanged between Batavia and the VOC director in Ayutthaya. These were sometimes also used to convey Siamese desires, but are of course especially valuable as they contain more inside information, which may not have been revealed to the Siamese. In the letters sent from Batavia to Europe, the Generale Missiven, the arms exports to Siam played only a very small role and they therefore only present a minor, though quite important, source.

A crucial advantage of these Company sources is their seriality. As diplomatic letters between the court and the Company, as well as inside the Company, were exchanged every year they provide a comprehensiveness that other sources lack. Most of the information about European weaponry in Southeast Asia in the literature so far has come from travelogues, and other published material, not from archival sources. The selection process of these sources is merely the fact that they were published, either by their author or by later historians, and that they are therefore easily accessible. They are however very much tied to single points in time. Therefore, our knowledge about arms trading in Southeast Asia so far consists of a mishmash of snapshots which are far removed from each other in time and space.[18] This means that we have evidence for arms trading for almost all corners of the region, as well as for the whole span of the early modern period. But it also means that there is no continuity; it is not possible to judge how representative or exceptional these observations were. Nor is it possible to show changes in the arms trade in a single place, as usually only single observations are available.[19] The use of published primary sources is however not eschewed, as they can provide many valuable details, especially about the country of Siam itself.

[17] Hendrik Niemeijer, ed., *The Diplomatic Correspondence between Asian Rulers and Batavia Castle during the 17th and 18th Centuries: The Digital Reconstruction of a Lost Treasure* (Jakarta, the Netherlands: ANRI, TCF, 2015).

[18] This can be seen in the sections on firearms in both Charney, *Southeast Asian Warfare*; and Andaya, 'Interactions'.

[19] But see footnote 2 for works which have gone against this trend, and focussed on single places through time through the use of archival sources.

Firearms technologies were spread around the world in both an abstract, intellectual sense in the form of knowledge about the manufacture and use of firearms, as well as materially in the form of the weapons themselves. These processes usually went hand in hand, with weapons first being introduced by foreign experts who were also their first users in the area. While almost all over the world firearms were then also adopted, by locals, foreign experts were frequently still in demand, whether firearms were produced locally or imported. After all, mercenaries and weapons producers could provide new knowledge and personal experiences gained on foreign battlefields, where firearms might have seen more use. This thesis is therefore concerned with both the transfer of knowledge, in the form of experts, as well as the transfer of material, in the form of weapons, as parts of the transfer of firearms technology from the VOC to Siam.

Historiography

The importance of firearms in the global Early Modern period has long been acknowledged. Francis Bacon regarded gunpowder as one of the most transformative inventions of all time, rivalled only by printing and the compass.[20] Because of Europe's superior arms in the 19th century age of imperialism, firearms have come to be associated with European scientific superiority. These assumptions were already present in British literature of the eighteenth century, where the gun featured prominently as a weapon of the civilised European who used it to defend himself against "barbarities".[21] But while the gun came to be a symbol of European superiority, during the Early Modern period it spread all over the globe and was used by non-Europeans as much as by Europeans.

The impact of firearms in Southeast Asia was most strikingly shown by the short-lived Burmese empire known as the First Toungoo Dynasty. A small principality in Southern Burma, in the 1530s Toungoo succeeded at conquering the coastal area of Lower Burma. Backed up by foreign mercenaries and their guns, Toungoo afterwards subjugated Upper Burma, the country's traditional centre of power. After having unified Burma, Toungoo turned outwards. When Bayinnaung, the empire's second ruler, died in 1581 he ruled over the largest empire mainland Southeast Asia has ever seen, stretching from Manipur all the way to the modern borders of Vietnam. Such a hastily built empire was of course unstable and collapsed soon after Bayinnaung's death. This empire was made possible by the influx of foreign firearms. It has

[20] Kenneth Chase, *Firearms: A Global History to 1700* (Cambridge: Cambridge University Press, 2003), 197.
[21] Priya Satia, *Empire of Guns: the Violent Making of the Industrial Revolution* (Stanford: Stanford University Press, 2018), 261–63.

been estimated that between one third and half of Bayinnaung's troops were equipped with muskets.[22] This compared favourably with contemporary European troops which were armed with firearms to a similar extent.[23]

But during the first Anglo-Burmese War(1824-26), still only half of the Burmese troops were armed with firearms.[24] They were utterly defeated by the troops of the British empire, which had made a full transition to firearms more than a hundred years before.[25] Firearms had played an important role in Southeast Asian warfare since the time of the Toungoo empire, European gunpowder technology had kept flowing into the region throughout, yet Southeast armies did not keep pace with those of Europe. Why was that? The performance of the British in the Anglo-Burmese wars makes it doubtful that the further adoption of European firearms was not desirable for Southeast Asian militaries. The problem should therefore not be sought in an unwillingness to adopt these weapons, but perhaps in an inability to acquire them. According to Michael Charney, the rampant sale of Western firearms in Southeast Asia came to be seen as a problem by colonial powers in the later nineteenth century, as a result of which they attempted to stop this arms flow to potential targets of colonisation.[26] The under-armament of Southeast Asian armies however preceded these measures, and had steadily increased in the previous centuries relative to Europe. All the same, many similar effects have been ascribed to firearms in Southeast Asian history as they are said to have had in European history.

The region-wide impact of firearms was first postulated by Anthony Reid, in his seminal *Age of Commerce*, although their impact in many areas had already been described.[27] He declared the introduction of firearms, and of foreign mercenaries using them, the two most important military changes to Southeast Asia. The impact of these weapons on society "transformed Southeast Asia rapidly, giving rise to states of unprecedented power. It transformed Europe even more rapidly, however, with results which would ultimately be fateful

[22] Charney, *Southeast Asian Warfare*, 67.
[23] Some Spanish formations fighting in the Netherlands for which information is available, were armed with gunpowder weapons to 30%. Bert S Hall, *Weapons and Warfare in Renaissance Europe : Gunpowder, Technology, and Tactics*, Weapons & Warfare in Renaissance Europe (Baltimore: Johns Hopkins University Press, 1997), 178.
[24] Charney, *Southeast Asian Warfare*, 67. Many of these had been bought from British merchants.
[25] While European cavalry still relied on melee weapons at this time, the British forces in the war were entirely composed of infantry and artillery.
[26] Charney, *Southeast Asian Warfare*, 247–50.
[27] Reid, *Age of Commerce II*, 219–33; Sudjoko, *Ancient Indonesian Technology : Ship Building and Fire Arms Production around the Sixteenth Century*, Aspects of Indonesian Archeology (Jakarta: Proyek Penelitian Purbakala Jakarta, Departemen P & K, 1981); Victor Lieberman, 'Europeans, Trade, and the Unification of Burma, c. 1540-1620', *Oriens Extremus* 27, no. 2 (1980): 203–26.

for Southeast Asia as for the rest of the world."[28] What really constituted this rapid transformation remained however rather vague.

Victor Lieberman, who had espoused the importance of imported firearms in Burmese history since the 80s, was more explicit.[29] In his magnum opus *Strange Parallels,* Lieberman identified imported weapons as one of the most important consequences of the growing foreign trade of the mainland Southeast Asian states. He nuanced Reid's ideas about the impact of firearms by identifying a large difference in the potential different states had in acquiring foreign weapons. The coastal states had much easier access to them. Not only were their ports the places at which the weapons entered Southeast Asia, they also generated the revenue which was necessary to buy them, and to maintain a large army. The poorer landlocked states not only had more difficulty to raise the funds for the weapons, but they could also be cut off from this supply by the coastal states if they so desired. Therefore the coastal states benefited the most from this trade, and dominated their neighbours.[30]

Thinking backwards from the nineteenth century military superiority of Europe, firearms in Southeast Asia were traditionally thought to have been introduced into the region by the Portuguese at the beginning of the sixteenth century. However, Sun Laichen demonstrated that gunpowder technology had already come to the Southeast Asian mainland in the previous century, overland from Southern China and not by the sea.[31] A reversal of the situation Reid and Lieberman saw in later times, this had given a military advantage to those inland states bordering China against their coastal rivals in the fifteenth century.[32]

Following Sun Laichen's emphasis on Asian military technology, Peter Lorge coined the term of the "Asian Military Revolution", an adaptation of the "Military Revolution" concept which was pioneered by Michael Roberts and Geoffrey Parker.[33] While Roberts and Parker disagreed on the time frame and the exact mechanisms of change, both agreed that the introduction of firearms into European warfare led states to field increasingly large armies, and forced them to improve their bureaucracies to finance these armies. Gunpowder technology

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[28] Reid, *Age of Commerce I*, 128–29.
[29] Lieberman, 'The Unification of Burma'.
[30] Lieberman, *Strange Parallels*, 48. Reid had already alluded to this himself(vol. 2, 220) but did not ascribe such an importance to it.
[31] Sun Laichen, 'Military Technology Transfers from Ming China and the Emergence of Northern Mainland Southeast Asia (c. 1390-1527)', *Journal of Southeast Asian Studies* 34, no. 3 (2003): 503–4.
[32] Ibid., 510–14.
[33] Geoffrey Parker, *The Military Revolution: Military Innovation and the Rise of the West, 1500-1800*, 2nd ed. (Cambridge: Cambridge University Press, 1996); Clifford J. Rogers, ed., *The Military Revolution Debate: Readings On The Military Transformation Of Early Modern Europe* (New York: Routledge, 1995) which contains the original lecture by Roberts, several important responses to Parker, as well as essays by Parker.

therefore played a crucial role in the development of the modern European state, which would ultimately also send its armies into Southeast Asia.[34]

Parker linked the military revolution to the "Rise of the West", as outlined in the book's subtitle. The expanded armies and state bureaucracies reinforced each other and ultimately surpassed their non-European counterparts so widely that on the eve of the First World War almost the whole world had been conquered by Europeans. However, Peter Lorge later located several military revolutions in Asia, most importantly that of the Song dynasty which preceded the European one by centuries. Unlike the uniform military revolution which had previously been postulated for (Western) Europe, Lorge classified several different responses to the introduction of gunpowder as "Asian military revolutions".[35]

In the case of Southeast Asia it is difficult to see this revolution, as Lorge follows Michael Charney's idea that "Firearms entered Southeast Asia […] and were integrated into an already mature local system of warfare" without creating radical change.[36] Yet he also contended that it was not yet possible to map out all the impacts made by Chinese and European firearms on Southeast Asia, because the literature was still too thin.[37] Lorge repeatedly stated that Southeast Asian states came to depend on Europeans for their weapon supply,[38] just as he claimed that the whole of Asia became part of "the European arms trading system",[39] without however being able to substantiate either claim with citations. The literature on this crucial trading system is unfortunately non-existent as of yet.

Siamese-Dutch relations have perhaps fared the best in this respect. Verbeek has noted the liberty with which the VOC supplied Ayutthaya with cannon and soldiers, as well as direct military support, at the beginning of the seventeenth century when both had the Portuguese as enemies. This culminated in 1650, with the setting up of a gun foundry in Siam with Dutch help. But, as the importance of Siam for the Company declined afterwards, the Dutch role as arms suppliers also waned.[40] Nearby Tonkin (Northern Vietnam) on the other hand continued

[34] While the Spanish and the Dutch already built territorial empires in maritime Southeast Asia when the military revolution was still ongoing both the Spanish Philippines and the Dutch East Indies only reached their full extent long afterwards. The states of the mainland likewise did not face European conquest until the 19th century.

[35] Lorge, *The Asian Military Revolution*, 20. See Frank Jacob and Gilmar Visoni-Alonzo, *The Military Revolution in Early Modern Europe : A Revision* (London: Palgrave Macmillan, 2016) for a recent work that wants to do away with the concept of the Military Revolution because of its eurocentrism, which however completely ignores Lorge's work.

[36] Lorge, *The Asian Military Revolution*, 99–100.

[37] Ibid., 91–92.

[38] Ibid., 90.

[39] Ibid., 17.

[40] Verbeek, *Onder Faveur Van 't Canon*, 230–32.

to receive cannon from the VOC until 1680.[41] When after the destruction of Ayutthaya King Taksin reformed the Siamese kingdom, he turned to the VOC to obtain muskets for his army. While the VOC was no longer present in Siam, it had no problem with delivering thousands of muskets from Batavia to Siam.[42] The intervening time, during most of which the VOC was the only large European presence in Siam, has remained ignored. The ease with which Taksin could buy weapons from the VOC suggests that the VOC had never stopped providing weapons to Siam.

A scarcity of such literature exists not only in Asian historiography. Even for Europe, where literature on the military revolution and the related concept of the fiscal military state abounds, works on the production and trade of weapons are comparatively rare.[43] Firearms play an important role in technological and societal development as well as an impetus for expanding fiscal systems. But not as physical objects that must be created and moved to where they are needed. The reasons for this imbalance in the literature are unclear, but likely related to the availability of the right primary sources, which are much rarer for weapons manufacturers than for state bureaucracies.

Perhaps surprisingly the region for which this literature is the best is Atlantic Africa. Guns and gunpowder played a crucial role in the Trans-Atlantic slave trade, being among the most important goods which were exchanged by Europeans for enslaved Africans. Additionally, firearms have been ascribed a similar role in state formation in Western Africa as that given them by Lieberman.[44] While the literature available for Africa is much better than that for Southeast Asia, many uncertainties about this trade persist.[45] In both cases, many theoretical claims have been made on a thin empirical basis. A lack of adequate sources plays an important role here once again, although it is very likely that much suitable source material exists but has not been used yet.

Considerations about the military balance between early modern Europe and the rest of the world do not stand on their own, but have an important role to play in the debate about the

[41] Hoang Anh Tuan, *Silk for Silver: Dutch-Vietnamese Relations, 1637-1700*, pt. Two; Verbeek, *Onder Faveur Van 't Canon*, 223–27.
[42] Blussé, 'Van Snaphanen En Edelstenen'.
[43] Michiel de Jong, *Staat van Oorlog: Wapenbedrijf En Militaire Hervormingen in de Repbuliek Der Verenigde Nederlanden 1585-1621* (Hilversum: Verloren, 2005) is a rare counterexample of a work that looks at weapons production from a national perspective. Somewhat more common are treatments of individual firms.
[44] R. A. Kea, 'Firearms and Warfare on the Gold and Slave Coasts from the Sixteenth to the Nineteenth Centuries', *The Journal of African History* 12, no. 2 (1971): 185–213; Joseph Calder Miller, *Way of Death: Merchant Capitalism and the Angolan Slave Trade, 1730-1830* (The University of Wisconsin Press, 1988).
[45] Philipp Huber, 'Arming the Slave Trade: The Importance of Guns and Gunpowder for the MCC', in *The Dutch Transatlantic Slave Trade: New Methods, Perspectives and Sources*, ed. Ramona Negron et al. (Amsterdam: Amsterdam University Press, Forthcoming).

Great Divergence. The focus of scholarship on the Great Divergence lies overwhelmingly on topics such as economics, institutions, technology, and geography, not on warfare.[46] If military matters are brought up, then it is usually in the mould of the fiscal-military state as mentioned above, concerned merely with the effect which military expenditure had on the development of the state and its financing mechanisms.[47] Warfare is therefore once again reduced to an instrument that leads to change in other sectors, but not as one of the deciding factors of the Great Divergence. The earliest signs of the Great Divergence were however all military; be they European successes in Southeast Asia or the Americas, the British conquest of India, or the first Opium War.

While debt financing was certainly helpful, it was neither it nor the cotton industry of Manchester which won the Opium War, but the cannon foundries of Scotland and the infantry tactics which had been developed on the European battlefields. The realities of European and non-European warfare therefore have to be brought into the debate on the Great Divergence. Such an attempt was recently made by Philip Hoffman, who developed a model to explain why European militaries started to outclass the rest of the world beginning in the early modern period, ultimately allowing Europe's conquest of most of the world. It was the consistent spending of large sums of money on firearms technologies, caused by competition between somewhat evenly matched European states, which led to a large number of innovations in the use and production of firearms.[48] That a lack of constant warfare on a high level hampered military advances in China has also recently been argued by Tonio Andrade.[49] Conversely, when such warfare took place in China it saw similar levels of military innovation as Europe.

In addition to the use of serial, archival sources, this thesis aims to innovate by showing how Ayutthaya armed itself, going beyond the basic, and very established fact, that it got more advanced technology from Europeans. It problematises the ability of the Siamese to import what they desired, with potential problems existing on both the side of the importer as well as

[46] Kenneth Pomeranz, *The Great Divergence: China, Europe, and the Making of the Modern World Economy* (Princeton University Press, 2000) as an example does not devote any considerable attention to military matters.

[47] Jean-Laurent Rosenthal and Roy Bin Wong, *Before and Beyond Divergence*, The Politics of Economic Change in China and Europe (Harvard University Press, 2011). Peer Vries, *State, Economy and the Great Divergence : Great Britain and China, 1680s-1850s* (London: Bloomsbury Publishing, 2015) on the other hand does bring up military power differences, but his main focus in the military sector lies upon its effects on state building.

[48] Philip T. Hoffman, *Why Did Europe Conquer the World?*, Course Book (Princeton: Princeton University Press, 2015).

[49] Tonio Andrade, *The Gunpowder Age: China, Military Innovation, and the Rise of the West in World History* (Princeton University Press, 2016); Tonio Andrade, 'The Military Revolution in Global History: East Asian Perspectives', in *The First World Empire: Portugal, War and Military Revolution*, ed. Hélder Carvalhal, André Murteira, and Roger Lee de Jesus, Warfare and History (London New York: Routledge, 2021).

on the exporter's on an empirical level. Showing how Siamese demands changed over time, and how successfully these demands were fulfilled, this thesis will also make a contribution to Siamese military history by considering the use of firearms in different types of conflicts.

One contribution of this thesis to historiography is therefore to show how an area which is neither China nor Europe, although connected through trade networks with both, could profit from military innovations made elsewhere.[50] By looking in detail at the arms imports of one of Southeast Asia's largest, and most well-connected, states it becomes possible to test Lieberman's claim about the advantages which such states supposedly possessed over their inland neighbours.

Beyond enriching our knowledge on the relationship between Ayutthaya and the VOC, this will also contribute to our understanding of how the VOC sold weapons, something which multiple scholars claimed it was opposed to by principle. I do not claim that this is emblematic of the VOC's behaviour throughout time and space. The relations it had with its many non-European interlocutors – partners, vassals, enemies - were simply too varied for that. It is however *a* way in which the VOC transferred firearms technology, to a large state against which it had no military ambitions. With further research, it should be possible to detect patterns of exchange based on the relationship between arms exporter and importer.

The first chapter will consider why the VOC was an attractive partner for Ayutthaya when it came to acquiring advanced firearms technologies. It will also shed light on how this acquisition took place, through the diplomatic exchange which occurred on a yearly basis between court and Company. The second chapter looks at the reign of KingNarai, Siam's most cosmopolitan ruler. This chapter will show that Narai, who waged many foreign wars, was especially interested in foreign experts and cannon but showed little interest in small arms. Ultimately, his attempt to improve the military industry of Siam failed because of an inability to secure enough foreign experts. The final chapter shows the changes to the importation of Dutch firearms technologies which were seen under Narai's successors. Plagued by domestic uprisings and economic problems, they limited themselves to importing Dutch muskets. While the uprisings were eventually defeated, the desired level of weapon imports were never reached, likely because of VOC concerns about the Siamese ability to pay for them.

[50] As of yet, Southeast Asia barely figures in the debate on the Great Divergence.

Chapter I: The Court and the Company

This chapter will provide the necessary context to understand the transfer of firearms technology from the VOC to Ayutthaya. After explaining how the company came to play an important role in Siam, the strengths of the Dutch arms industry, which enabled the VOC to act as a weapons supplier, will be visited. With the attractivity of the Dutch as a source for European weapons established, the mechanism through which this arms trading was carried out, diplomatic gift giving, will be investigated. Understanding how Dutch supply and Siamese demand could be brought together lays the basis for the case studies which follow in Chapters II and III, which will trace how this transfer played out in the years from 1656 to 1709.

Europeans in Siam

According to Victor Lieberman, all of mainland Southeast Asia went through the same development in the Early Modern period: Centralisation and consolidation of political power. Around 1340 there were 23 independent kingdoms on the mainland, plus many smaller ones that were at least formally subservient to other states.[51] By 1802 there were only three truly independent states left: Burma, Siam, and Dai Viet.[52] These powerful states not only covered much more territory than they had 500 years earlier, they also exercised much closer control over the outlying lands, when in earlier times the reach of the state did not expand further than a few days' voyage from the royal capital. One of the factors which spurred on the centralisation of power was the influx of foreign firearms. Access to these weapons, and to the means to pay for them, was easier for the coastal powers that engaged in maritime trade. According to Lieberman, among the large states Siam was the one most orientated towards maritime trade.[53]

From the late 14th century onwards the political centre of the central mainland moved from the Cambodian city of Angkor to the newly founded Ayutthaya, located in the Chao Phraya delta. The new state centred on this city became more and more dominant in the central mainland in the following centuries after defeating Angkor in 1431. It also extended its power towards the Malay peninsula, although control over the cities there was often quite spurious. After early successes against its Thai and Khmer neighbours, the most dangerous threat for

[51] Lieberman, *Strange Parallels*, 25.
[52] Ibid., 31 The Southeast Asian mainland includes the territory of the modern states of Myanmar, Thailand, Laos, Cambodia, and Vietnam. While they are on the Malay peninsula, the areas now part of Malaysia and Singapore are counted as parts of Archipelagic Southeast Asia because these areas were orientated towards the Sea rather than towards the mainland.
[53] Ibid., 215–16.

Ayutthaya turned out to be the Burmese, who from time to time started incursions towards Siam, and conquered Ayutthaya twice. Compared to its predecessors like the Khmer empire and the northern Thai city of Sukhothai, the Ayutthayan state relied much more on revenue from maritime long-distance trade.[54]

Ayutthaya's position between the Indian Ocean and the South China Sea put it into an advantageous position to profit from long-distance trade between China and India. The city attracted traders from both seas who could exchange their products with each other there. While the appearance of European ships in Asian waters meant more competition, it was a great boon for Ayutthaya. When the Portuguese conquered Malacca in 1511, at that time the most important port city in Southeast Asia, many Asian traders were driven from the place by the restrictive policies put in place by the new Portuguese government. These traders flocked to other nearby ports, with Ayutthaya being one of the major recipients.[55]

Although Malacca was considered a vassal by Siam, the king of Ayutthaya had at the time been at war with Malacca himself, and therefore welcomed the Portuguese ambassadors that visited him from 1511 onwards. The first diplomatic gifts the two powers exchanged included swords and armour, some of them looted from Malacca. After 1515 Portuguese private traders began to settle in Siam, trading to the Indian Ocean and China, as well as eventually to Japan which was the biggest customer for Siamese deer hides. Later on in the century, Portuguese mercenaries joined the Siamese armies in wars against Chiang Mai and Burma, both as soldiers and as officers.[56] The Portuguese were however also active in Burma, and when Ayutthaya was conquered by the Burmese Toungoo dynasty in 1569, the Toungoo army included many Portuguese mercenaries. The Portuguese were mainly responsible for the cannon and muskets of the army, but there were also Indian mercenaries using firearms. Luso-Siamese contact at this time happened mainly through private initiative, with Portuguese officials showing little interest in Ayutthaya. Combined with the exploits of Portuguese mercenaries which were threatening Ayutthaya territory, this backfired for the Portuguese once the Dutch appeared on the scene.[57]

Uniting several earlier Dutch companies that were trading to Asia, the VOC was founded in 1602. This was partly to prevent the companies from competing with each other, but also to turn them from a trading venture into an organisation that was also of military use.

[54] Ibid., 242–47.
[55] Reid, *Age of Commerce II*, 64–66.
[56] Maria da Conceição Flores, 'The Portuguese and Siam in the Sixteenth and Seventeenth Centuries: A Brief Survey', in *Reflexions on 500 Years of the Thai-Portuguese Relations*, ed. Natthanan Kunnamas and Pornsan Watanangura (Bangkok: Centre for European Studies at Chulalongkorn University, 2015), 19–20.
[57] Ibid., 20–22.

From the start the VOC therefore not only sailed to Asia to trade but also to fight the Spanish and the Portuguese, who were ruled by the Spanish king between 1580 and 1640. The Company initially focused on the "Spice Islands" of Indonesia. But they soon also turned toward China, and to Japan, where silver could be obtained to be spent in China. The already existing export of deer hides and other forest products from Siam to Japan therefore made Ayutthaya an interesting place for the Dutch, as long as they could control the hides trade and retain access to Japan.[58]

After some years of diplomacy, including even a Siamese embassy to the Netherlands, the VOC settled in Ayutthaya in 1613 to trade with Japan and China. The VOC now gained standing at the court, eventually becoming the most important European presence there. This was helped by the Spanish, when some of their ships attacked Dutch shipping in Siamese waters in the 1620s. This was objected to by the Siamese who eventually also fought the Spanish, a development which was encouraged by the Dutch. As the king of Ayutthaya was aware of the Portuguese union with Spain this also reflected badly on the Portuguese.[59] Portuguese trade with Ayutthaya never completely ended, but it greatly diminished especially as after 1639 they were no longer able to trade with Japan, and Malacca was conquered by the VOC in 1641.[60] However, a Portuguese community remained in Ayutthaya until the destruction of the city by the Burmese in 1767. This mestizo settlement numbered several thousand members, who were part of Siamese society and therefore also liable to provide corvée labour, often as soldiers.[61]

The English East India Company (EIC) also came to Siam but found little success there and abandoned its Siamese factories in 1623. From the 1650s onwards, Englishmen again came to Siam but not on behalf of the EIC. An attempted reestablishment of the EIC factory in Ayutthaya was not very successful, as its servants lied to their superiors and only worked for their private enrichment. Many of them entered the service of the king, as soldiers, sailors, and even governors.[62] More threatening to the VOC were the French, which for a time gained much influence at court.

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[58] Bhawan, *VOC at Ayutthaya*, 18–19.

[59] Dhiravat na Pombejra, 'Conflicts and Rivalries along the Coasts of Siam: Ayutthaya's Relations with the Portuguese, the Spaniards, and the Dutch in the 1620s and 1630s', in *500 Years of Thai-Portugese Relations: A Festschrift*, ed. Michael Smithies (Bangkok: The Siam Society, 2011), 149–53.

[60] Japanese self-isolation also helped the VOC by eliminating Japanese competition on the Siam-Japan route.

[61] Miguel Castelo-Branco, 'The Community of Portuguese Descent in Siam: From Ayutthaya to Early Bangkok Period', in *Reflexions on 500 Years of the Thai-Portuguese Relations*, ed. Natthanan Kunnamas and Pornsan Watanangura (Bangkok: Centre for European Studies at Chulalongkorn University, 2015), 70–72.

[62] D. K. Basset, 'English Relations with Siam in the Seventeenth Century', *Journal of the Malaysian Branch of the Royal Asiatic Society* 34, no. 2 (1961): 90–105.

In 1680 and 1684, King Narai sent embassies to the court of King Louis XIV. The influence of French missionaries and traders grew, supported by the Greek Catholic Constantin Phaulkon, then the king's most important advisor. French engineers designed several fortresses for the Siamese, not all of which were finished. With the last French embassy, several hundred French soldiers were sent to Siam, who were garrisoned at Bangkok and Mergui, the two ports that controlled Siamese access to the Gulf of Siam and Bay of Bengal. The presence of French troops in the country, together with French attempts at converting Narai to Catholicism, led to strong backlash by Siamese nobles. Before the fortresses being built for the French were finished, Narai fell ill. In the struggle over his succession, Phaulkon and the French fell completely out of favour. In May 1688 the future King Phetracha led a coup d'état against Narai, and executed Phaulkon. The French forts were laid siege to, allegedly with Dutch assistance.[63] After several months of siege the French surrendered and left the country. As the VOC had not worked with the French or Phaulkon, Phetracha quickly renewed the contract between Siam and the VOC that Narai had earlier signed, which conferred monopolies on the hide and tin trades to the company.[64]

The VOC presence also had its ups and downs, with its offices closing down several times because of unprofitability. Whenever possible it negotiated with the king for a monopoly on the export of animal hides for Japan, and later also on tin which was sent to China, India, and Europe. While both monopolies were usually held by the company from the 1660s onwards, they often proved all but impossible to actually carry out. Competition in buying skins and tin came not only from other European, Chinese, and Japanese merchants, but also Siam's largest trader; its king. The monopolies therefore often had clauses that allowed royal trading, which was sometimes abused by other traders to obtain these goods.[65] The role of Siam in the trade system was not that of a customer but purely of a source of goods to be resold on other Asian markets, especially deer skins and sappanwood for Japan, as well as tin and sappanwood for China and India. Additionally, the availability of rice and wood for construction made Siam interesting for the material security of Batavia, although exporting these goods from Siam did not always go as the Company had hoped.

With its value depending to a large extent on the market situation in other countries, Siam became one of the less important outposts for the company in the eighteenth century as

[63] Bhawan, *VOC at Ayutthaya*, 150–55.
[64] The xenophobia of Phetracha was accepted for a long time, but has since been nuanced by Dhiravat na Pombejra, and Remco Raben. Phetracha was not opposed to foreigners, he was just cautious towards Europeans as they had been his main opponents in the succession struggle.
[65] Smith, *Voc in Ayutthaya*, 65–66.

the trade with Japan declined in importance. Yet the VOC remained there until the 1760s. It was the Burmese invasion which led to the permanent abandonment of the VOC factory in Ayutthaya in 1765, a wise move as the city was completely destroyed two years later. Dutch-Siamese trade was however reborn in the next decade. The new Siamese King Taksin re-established contact and trade with the VOC capital in Batavia through Chinese merchants that were sailing between there and Thonburi. The main interest for the king was the provision of muskets for his armies that were reuniting the country and expelling the Burmese.[66] The illustrious reign of Narai has blinded historians to much of what came after him. His many interests mean that many forms of Siamese interaction with the rest of the world have been researched, but the arms trade is not one of them. This is because it receives a lot less attention than many other forms of exchange in early modern historiography. Therefore I will now turn to the first step of weapons trading, the production.

Dutch Military Industry and the Arms Trade

Then as now, the number of arms exporters is much smaller than that of importers. The group of first-tier suppliers is even smaller and seldom numbers even a handful. When the VOC entered Asian waters, the Dutch Republic was among the leading (fire)arms producer in Europe, and perhaps the world.[67] This arms industry had been nurtured by the young Dutch state, which could not have survived its permanent state of war without it. The skilled labour available in the highly urbanised Netherlands and the ease of importing necessary materials were the factors making the development of this industry possible.[68] The relative decline of the Dutch participation in European wars after 1700 and the resulting decrease in military spending has been identified as the point at which the Netherlands lost its first-tier position, although it remained an important producer for the next century.[69] The Netherlands possessed expertise and productive capabilities in all of the products associated with the European military revolution.

Keith Krause identifies the invention of the cannon not only as the cause of the military revolution, but also as the starting point of the modern arms trade system.[70] Cannon can be differentiated by their production method: early wrought iron cannon were inferior to cast

[66] Blussé, 'Van Snaphanen En Edelstenen', 470–73.
[67] Kees Boterbloem, *The Dirty Secret of Early Modern Capitalism: The Global Reach of the Dutch Arms Trade, Warfare and Mercenaries in the Seventeenth Century* (New York: Routledge, 2020), 43–45.
[68] Jong, *Staat van Oorlog: Wapenbedrijf En Militaire Hervormingen in de Repbuliek Der Verenigde Nederlanden 1585-1621*, 182–84.
[69] Boterbloem, *Dirty Secret*, 217–18. This is also consisted with the theories of Krause and Hoffman.
[70] Keith Krause, *Arms and the State: Patterns of Military Production and Trade*, Cambridge Studies in International Relations (Cambridge: Cambridge University Press, 1992), 1.

bronze cannon, which were however both more expensive and more difficult to make. Throughout the Early Modern period iron casting advanced in Europe sufficiently enough to produce cast iron cannon that were good enough to replace cast bronze guns for most tasks. The cannon rendered medieval castles obsolete, and led to the development of the *trace italienne* fortress, which is the second key technology of the Military Revolution. Also called artillery fortresses, these were constructed so as to minimise the effect of enemy cannon, while allowing the defenders maximum use of their own firearms. The difficulty of besieging these fortresses was what led to the enlargement of European armies according to Parker. Matchlock muskets enhanced the firepower of the infantry. Beginning in the middle of the seventeenth century, the flintlock musket was introduced as a more reliable alternative, which was however used alongside the matchlock in Europe until the early eighteenth century. At this point the flintlock not only superseded the matchlock, but through the addition of the bayonet also made all other infantry weapons superfluous. On the seas, low numbers of cannon were initially installed on galleys, but boarding the enemy remained the main way of fighting. The addition of several decks allowed the multiplication of the number of guns on board and a turn towards artillery duels instead of boarding actions. The final, crucial military technology which is necessary for all the preceding ones is also the oldest one: gunpowder. The standard mix of 75% saltpetre, 12.5% sulphur, and 12.5% charcoal was discovered early in the gunpowder age. However, the methods of mixing powder advanced over time, improving both reliability and power. Using the most advanced methods to produce high-quality gunpowder could provide an army with superior firepower. These were the key firearm technologies of the Early Modern world.[71] The gun-carrying ship and the artillery fortress have been singled out by Parker and Andrade as crucial for European military success overseas; the first for establishing it and the second for maintaining it.[72] The VOC was an avid customer for all of these products.

The Dutch were among the forerunners in ship design and the use of artillery onboard. They were even more dominant in shipbuilding itself and built ships for customers all around Europe. The VOC was Europe's biggest non-state customer for ships, and it possessed six dockyards in the Netherlands in which it built its own ships. Because they could not rely on protection from the Dutch navy as much as intra-European traders, the ships of the company were larger and much better armed than normal merchant ships, often comparable to navy ships

[71] The above is based on Parker, *The Military Revolution: Military Innovation and the Rise of the West, 1500-1800*, chap. I.

[72] Tonio Andrade, 'Was the European Sailing Ship a Key Technology of European Expansion? Evidence from East Asia', *International Journal of Maritime History* 23, no. 2 (2011): 17–40.

of the same size. According to Michiel de Jong, in 1609 weaponry made up 22-29% of the cost of equipping a VOC ship for its voyage to the East.[73]

The large cost of equipping VOC ships came partly from the fact that part of their armament was made up out of bronze cannon, which were more expensive but also more long-lasting than iron guns. The Dutch Republic was a leading centre of bronze casting. The war with Spain had created a large demand for bronze guns especially for the navy. Therefore, at some point all cities that were the seat of an admiralty, but also other cities like Dordrecht, The Hague, and Utrecht, had cannon foundries.[74] Like the wood for the ships, the bronze used for casting was imported from abroad. Sweden became the most important provider for this raw material. It also provided most of the cast iron guns, few of which were made in the Netherlands. Instead, Elias Trip and his Walloon brother in law Louis de Geer established an iron cannon complex by bringing Walloon experts to Sweden. With this they created the largest armaments company in the world, controlled from Amsterdam which was the centre of the European arms trade.[75] The Swedish-Dutch cooperation is an outstanding example of successful technology transfer, as it made Sweden into the dominant source of cast iron cannon for Europe until the nineteenth century. Bronze casting in the Netherlands on the other hand declined throughout the seventeenth century, as the end of the wars, the built up stock of guns, and the competition by Swedish iron guns lowered demand. In the eighteenth century only a few gun foundries remained.[76]

The demand for gunpowder was enormous, as army, navy, VOC, the West-India company, and private traders all depended on it. Gunpowder mills, driven mostly by animal power, therefore dotted the Dutch landscape, and important port cities could often sustain more than one of them.[77] The location on the sea was also important as saltpetre, the main ingredient of gunpowder, was an imported product. While originally most of it was bought from the Baltic, the VOC began to import large amounts of saltpetre from India which became the main source for the Dutch industry. With this the company also secured its own supply of gunpowder, although it had quickly moved to establish gunpowder mills in various locations in Asia.[78] The

[73] Jong, *Staat van Oorlog: Wapenbedrijf En Militaire Hervormingen in de Repbuliek Der Verenigde Nederlanden 1585-1621*, 128–30.
[74] L. D. Westera, 'De Geschutgieterij in de Republiek', in *Ondernemers & Bestuurders. Economie En Politiek in de Noordelijke Nederlanden in de Late Middeleeuwen En Vroegmoderne Tijd*, ed. Clé Lesger and Leo Noordergraaf (Amsterdam: NEHA, 1999), 577–602.
[75] Boterbloem, *Dirty Secret*, 150–53.
[76] Westera, 'De Geschutgieterij in de Republiek', 582–84.
[77] In the eighteenth century the island of Walcheren in Zeeland alone had five powder mills concurrently. Gerhard de Kok, *Walcherse ketens: De Trans-Atlantische Slavenhandel en de Economie van Walcheren, 1755-1780*, Zutphen (Walburg Pers, 2020), 159–60.
[78] Verbeek, *Onder Faveur Van 't Canon*, 189–93.

company itself was therefore only dependent on the Dutch industry for the gunpowder needed to sail to Asia, while the gunpowder for intra-Asian use could be produced closer to the action. This was important as the long transport impacted the quality of the powder and because it would have taken up an enormous amount of space on the ships as hundreds of thousands of pounds of gunpowder were consumed annually by the company if it was involved in a large conflict.

Comparatively little is known about the production of muskets in the Dutch Republic, partly because, unlike cannon or gunpowder, muskets were produced in small workshops and not large plants, leaving fewer traces. Before 1600 they were mostly imported from Liege in modern-day Belgium and from several German cities, especially Essen and Suhl. But because of the Netherlands' dominant position in the European arms market in the seventeenth century, musket assembly was also established there, with many gunmakers migrating from the areas from which the Netherlands used to buy its muskets. This however mostly concerned the final assembly of the muskets. Liege and Germany continued to supply the components, such as locks and barrels, which were assembled into finished guns in the Netherlands.[79] The Dutch musket industry declined towards the middle of the eighteenth century, when Liege and Germany began to play a bigger role again.[80] Around this time Birmingham also began its ascent to become the world's leading musket producer, capturing many potential export markets.[81]

The artillery fortress was developed in Italy, but the Eighty Years' War forced its adoption in the Netherlands. To save time and money, these fortresses were built in a style known as the "Old Dutch System". The multitude of fortresses in the Low Countries made the Eighty Years' War into a war of sieges, which led to new developments in fortress building and sieging. Many Dutch siege engineers were employed throughout Europe, and also published their views on their craft in books. Simon Stevin even taught a course on fortifications at Leiden University.[82]

The Netherlands of the late sixteenth and the seventeenth century are therefore a good example of Phillip Hoffman's theory about military development. Because military spending,

[79] Jong, *Staat van Oorlog: Wapenbedrijf En Militaire Hervormingen in de Repbuliek Der Verenigde Nederlanden 1585-1621*, 267–69.
[80] Mathieu Willemsen, 'Dutch Muskets, Aspects of Eighteenth Century Firearms and Gunmaking in The Netherlands', *Arms & Armour* 18, no. 2 (3 July 2021): 204.
[81] The rise of the Birmingham gun industry has been very ably described in the first part of Satia, *Empire of guns*.
[82] Erik Odegard, *The Company Fortress : Military Engineering and the Dutch East India Company in South Asia, 1638-1795*, Colonial and Global History Through Dutch Sources (Leiden: Leiden University Press, 2020), 26–29.

not just from the state but also private parties, remained at a high level for more than a century, the Dutch Republic maintained its position at the forefront of military innovation and military production.[83] As the level of investment was so great, the chance for innovations to appear was much higher than in other regions.

The Netherlands could therefore supply all foreign needs when it came to firearms technology. European states could do this through their representatives in the Netherlands, who could contract for the delivery of military material or hire experts. But this was not a possibility for Southeast Asian powers. They had to turn to the European presence in Southeast Asia. This could be the colonial state or chartered companies, but it could also be less official representatives such as free traders, or the ubiquitous Portuguese renegades that were popular as mercenaries.

Keith Krause tried to create a theoretical model which was able to adequately explain the structure of the global arms trade during the Cold War, but which could be used to analyse all time periods. According to him, in a chaotic international system, which the state systems of Europe and Southeast Asia definitely were, all states are interested in producing their own arms supply. But this is not feasible because of different factor endowments and levels of technological sophistication. It is this uneven distribution of productive capacity which creates the arms trade.[84]

While these capacities differ from product to product, they tend to cluster in some countries, such as the Dutch Republic. These *first-tier suppliers* are both the largest players in the arms trade, and the ones that produce innovation on a fundamental level which leads to new types of weaponry rather than simply marginal improvements. Because this innovation is dependent on such a high level of spending, there are at most a handful such states at any given moment.[85] Some other states are however also able to reproduce these technologies, and to export them.

Most states are interested in improving their level of military technology. The simplest and most straightforward method for this is of course the import of foreign weapons, which can introduce a new technology into a state. The most coveted, and most difficult, method of achieving this is however to take up production of these technologies domestically. This requires a transfer of technology, which traditionally was carried out through the migration of

[83] Marjolein 't Hart, 'The Merits of a Financial Revolution: Public Finance, 1550–1700', in *A Financial History of the Netherlands*, ed. Marjolein 't Hart, Joost Jonker, and Jan Luiten Van Zanden (Cambridge: Cambridge University Press, 1997), 16–17.
[84] Krause, *Arms and the State: Patterns of Military Production and Trade*, 16.
[85] When Krause was writing at the end of the Cold War these were only the United States and the Soviet Union.

experts in the use and production of weapons; both artisans and military advisors, which in the Early Modern period could sometimes be the same person. A permanent upgrade of technology requires either a constant influx of material or experts, or the indigenisation of foreign knowledge. The much more difficult option, the latter, often fails because the receiving society is incapable of emulating the sending society economically, socially, or politically. Therefore, most states remain dependent on others for their most advanced weaponry. Southeast Asia was one region in which this was the norm, which explains why it was so receptive to imports of European weaponry.

Diplomatic Gift Giving

Both the extensive production of military material in the Netherlands, and Southeast Asian demand for foreign weaponry are known factors.[86] Much less understood in the Siamese context is how these two factors came together to supply Siam with Dutch weaponry. The answer lies in diplomatic gifting. In recent years the place of gift giving in diplomacy has found a prominent position in the so-called New Diplomatic History, which has also put more emphasis on diplomacy outside of Europe than traditional diplomatic history. However, when it comes to gifting outside of Europe, New Diplomatic History looks at it through the framework of tribute.[87]

But while Ayutthaya was officially a Chinese vassal and in turn had its own vassals which owed it tribute, Dutch-Siamese relations and gift giving were not part of a tributary relationship. The VOC did not send the king the *bunga emas dan perak* (gold and silver flowers) which Siamese tributaries had to send to the king as a sign of their subjugation. Rather, the VOC was one of several powers which the Siamese court saw as its equal and which it therefore interacted with in an equal relationship, as it also did with the Japanese Shogun or the king of France.[88] This adheres more to the equal diplomatic relations which Korea and Japan maintained outside of the Chinese tributary system than anything that happened in it.[89] This does not mean of course that there were no power imbalances between the two; the Dutch were at the mercy of the king while in Siam, but their naval superiority was such that they could have ruined Siamese shipping on the open seas. But the tone which was usually taken in their

[86] While debate exists about the impact of firearms in Southeast Asia, the fact that Southeast Asians were interested in importing firearms has not been challenged.
[87] See for example the special issue of *Diplomatica* 2(2) "Gift and Tribute in Early Modern Diplomacy: Afro-Eurasian Perspectives.
[88] Bhawan, *VOC at Ayutthaya*, 30.
[89] Francois Gipouloux, *The Asian Mediterranean: Port Cities and Trading Networks in China, Japan and Southeast Asia, 13th-21st Century*, trans. Jonathan Hall (Cheltenham: Edward Elgar, 2011), 95–97.

relations was that of a friend- and partnership. For reasons of prestige and propriety this friendly relation was officially between the Siamese king and the prince of Orange, but in reality the Governor-general in Batavia was the one maintaining relations with Siam.[90] On the Siamese side the Phraklang, a combination of foreign and finance minister, was responsible for the conduct of diplomacy.

However, similar to many tributary relations, the gifts exchanged between these two friendly powers constituted a form of trade, which supplemented the regular trade between them. Giorgio Riello and Zoltán Biedermann conceive of a diplomatic gift as "things given away in the context of diplomatic negotiations without a direct pecuniary payment in exchange" while acknowledging that it can be difficult to clearly separate from trade.[91] Dutch-Siamese relations strain this definition to its utmost, as they combined the appearances of diplomacy, almost in the vein of the Chinese system, with very clear financial underpinnings. It is therefore worthwhile to see how the Siamese system of gift giving with equals differed from the Chinese tributary system, which is much more prominent in the literature.[92]

Providing tribute or a gift respectively were both necessary for foreigners to be allowed to trade in China or Siam.[93] But contrary to the ideology of the Chinese state, which considered foreign trade as something which at most had to be tolerated as a necessary by-product of the tributary system, the Siamese state was not at all interested in limiting foreign trade outside of gifting. The main purpose of the tributary system was to enforce a sinocentric world order. To achieve this, both limited foreign trade and financial losses for the state were accepted. The emperor responded to the tribute presented to him with a more valuable counter gift. Private Chinese merchants on the other hand, could profit from trading with the ships that were allowed to visit China to bring their tribute.

In contrast, the Siamese state used diplomatic gifts to profit financially, as foreign trade was one of the main mechanisms of state finance in Siam unlike in China where it was of minor importance. Most of the revenue of the Siamese king was in the form of corvée labour or natural products. To turn these into money, or the foreign goods he required, he was forced to turn to

[90] Only the earliest letters were addressed to the prince of Orange, but letters to the Governor-general frequently mentioned how dear the friendship of the prince of Orange was to the king of Siam. This talk of friendship should not be overinterpreted, as it was a common trope in Malay diplomatic letters, and many of the Siamese diplomatic letters were written in Mala.

[91] Zoltán Biedermann, Anne Gerritsen, and Giorgio Riello, 'Introduction: Global Gifts and the Material Culture of Diplomacy in Early Modern Eurasia', in *Global Gifts: The Material Culture of Diplomacy in Early Modern Eurasia*, ed. Anne Gerritsen, Giorgio Riello, and Zoltán Biedermann, Studies in Comparative World History (Cambridge: Cambridge University Press, 2017), 6–7.

[92] The following discussion of the Chinese Tributary System follows the conception of it provided by Gipouloux, *Asian Mediterranean*.

[93] Bhawan, *VOC at Ayutthaya*, 30.

foreign trade. The value of the Siamese counter gift was also designed to match or even surpass that of the original gift presented to the king, to show the wealth and generosity of the king. However, the value of the original gift was assessed by the Phraklang, in effect letting him decide the value of the counter gift. Both in regular trade with the king, and as in gifting, the value of the main Siamese commodities, such as tin and sappanwood, were fixed. These royal prices were often higher than what private traders would have charged.[94] By estimating the value of the present at less than its true value, the de facto value of the Siamese counter gift increased. Unlike in regular trading, the gift and counter gift were not exchanged at the same time; the counter gift followed months later. Therefore it was not possible to refuse a low value counter gift, while a regular sale of goods to the king could be refused if the VOC did not agree on the price he offered.[95]

The gifting system was therefore a way in which the king could dictate the terms of trade, at least for a part of his exchange with the VOC. It also allowed him to decide the form that the payment for his imports would take. At the start of the eighteenth century for example, the counter gift came to include increasingly large amounts of sappanwood. While it was one of the main trade goods for the VOC in Siam, the bulkiness of sappanwood relative to its value meant that the VOC would have preferred to be paid in tin, or ideally in silver instead. An enormous amount of sappanwood accumulated in the Company warehouse, which was difficult to ship out. Given the choice, the Company would almost certainly not have bought so much sappanwood from the king.[96]

As the counter gift was given later, this also made the trade through gifting a form of credit for the king, allowing the purchase of imports that could be re-sold or used otherwise, on credit which could otherwise be hard to come by. Beyond the credit implied by the fact that the counter gift was only determined and given months after the present, a counter gift debt was also not uncommon. Announcing the counter gift in a diplomatic letter did not always mean that it was also delivered in full to the warehouse of the VOC. It could take more than a full year until the VOC had received its full counter gift.

[94] VOC 1711, 726-728. Gideon Tant, former director in Ayutthaya mentioned an extreme case of the king buying up most of the tin in Ligor. Although the journey from Ligor to Ayutthaya only took three days, the value of the tin gifted in Ayutthaya was determined to be twice that of the price for which it could be bought in Ligor.
[95] VOC 937, 328-330. In 1702 the Governor-general told the Phraklang that in the future the Company would stop shipping Indian cloth to Siam, as the prices it was offered by the royal factors were simply too low to turn a profit. Such textiles were however still part of the presents sent from Batavia.
[96] VOC 943, 204-206. The Governor-general complained about the counter gift being half in tin, half in sappanwood. He would have preferred it to be half in tin and half in copper, as the had already built up a debt in the form of undelivered sappanwood to the Company.

That the gift exchange was both a diplomatic necessity and a form of (forced) trade was clear to both sides. Comparisons of the monetary value of the company's gifts and the king's and Phraklang's "counter-gifts" were a common topic in the correspondence between the Governor-general and the VOC director in Siam. When Director Gideon Tant was happy to be able to report a profit on the gifts of f. 2602 in 1701, he was scolded by the Governor-general that this profit only existed on paper. This was because even the internal Dutch assessment of the value of their gift was too low. The goods were valued at their purchase price in the Netherlands, but did not include the costs incurred by transporting them to Siam. A proper account of the exchange would therefore reveal a loss, but it was a loss the Governor-general accepted as he saw it as a necessity to buy the grace of the king.[97] The Company was thus clearly aware of the game that was being played, but went along with it as a necessity for trade in Siam. Even the French ambassador Simon de la Loubere, who only spent three months in Siam, described the gifting as "a trafficking under an honourable Title, and from King to King" in which the Siamese "are really concern'd only for the Profit."[98]

As gifting was a form of trade, the gifts were mainly comprised of the goods that the two parties traded with each other anyway. Initially the company received Siamese elephants as presents, which it resold to India. But from 1672 onwards both the king and the Phraklang started to exclusively gift tin to the company, which had become its second most important export good next to animal hides for Japan.[99] From 1702 sappanwood, at that time perhaps the most important export of the company, started to accompany the tin.[100] The king chiefly received Indian textiles, which were the most important import good of Siam. King Narai is famous for his cosmopolitanism and his curiosity about the world. He therefore also requested a long list of goods from the company which were called rarities (*rariteijten*).[101] Many of these rarities came from two product categories in which Europeans were world leaders; glass and clocks.[102] Mirrors, eyeglasses, spyglasses, and clocks and watches of all sizes were always

[97] VOC 936, 238. Governor-general and Council of India to Director Gideon Tant, 30 April 1701.
[98] Simon de La Loubere, *A New Historical Relation of the Kingdom of Siam*, trans. A.P. Gen. R.S.S (London: Printed by F.L. for Tho. Horne, Francis Saunders, and Tho. Bennet, 1693), 110, https://archive.org/details/bub_gb_RvpBAQAAMAAJ/page/n1/mode/2up.
[99] Vinal Smith attributes this change to the fact that the transport of the elephants was expensive and their mortality high, so that it was not profitable enough for the company.
[100] VOC 1663, 87. Letter of the Phraklang to the Governor-general, 1702.
[101] Rariteijten also played a role in the diplomacy of the Dutch state. Claudia Swan, 'Dutch Diplomacy and Trade in Rariteyten: Episodes in the History of Material Culture of the Dutch Republic', in *Global Gifts: The Material Culture of Diplomacy in Early Modern Eurasia*, ed. Anne Gerritsen, Giorgio Riello, and Zoltán Biedermann, Studies in Comparative World History (Cambridge: Cambridge University Press, 2017), 171–97.
[102] Kenneth Chase identified these two goods as the ones, besides firearms, in which Europe was clearly ahead of the rest of the world.

welcome at Narai's court. But he was also interested in Dutch hats and cockatoos from the Moluccas. Those spices that were monopolised by the company were also welcome gifts. Textiles could be resold in Siam or gifted to the king's vassals and to the clergy. Rarities likewise made good gifts to followers, but also served to enhance the sovereign's prestige, and at least in the case of Narai clearly also served his personal enjoyment. The presents were a convenient way of accessing goods that were normally not brought by foreign traders to Ayutthaya.

Dutch-Siamese relations in Practice

Normally Ayutthaya and Batavia each sent letters to the other court once a year. The letters of the king and the Phraklang were sent to Batavia on junks, that were either owned by the crown or by Chinese merchants, or on VOC ships. An answer was usually only composed months later, when it was suitable for the company. All of the company's letters travelled on Company ships, and were accompanied by presents, trade goods, and internal letters of the Company. Company ships often made more than two of these relatively short trips - about 4 weeks, if the weather was good – in a single year. But these ships would only carry trade goods and internal letters of the Company, often using Siam as a stopping point on the way to or from Japan.

The letters from Siam were normally presented to the Governor-general a few days after they had arrived in Batavia, when the rituals associated with royal letters could be performed. The letter was taken on a carriage, accompanied by eventual Siamese envoys and also several VOC officials. Soldiers lined up in the streets and fired musket salvos, just as one of the bastions of Batavia would also fire a salute with its cannons(usually 7 shots). Sometimes the ship that had brought the letters also shot a salute. The letter was taken to the Governor-general, where it was read and translated by the captain of the Malays, if the letter was written in Malay. Later letters were often written in Chinese, which the company seems to have preferred by then as it was clearer than the Malay.[103]

The letters began with an introduction and boasting of the sender and the recipient. The long titles and name of the Siamese king, who "has the white elephant and sits on the golden throne", were difficult for the Dutch, for which reason they were sometimes not reproduced in full. The king, the "Oya Bercquelang"(Phraklang), and the "Captain of Jaccatra"(Governor-general) then congratulated each other on their position and wished for the other to live a long

[103] For a fuller description of this ritual, which was broadly the same for all letters from foreign rulers, see Leonard Blussé, 'Queen among Kings: Diplomatic Ritual at Batavia', in *Jakarta Batavia: Socio-Cultural Essays*, ed. Peter J. M. Nas (Leiden: KITLV Press, 2000), 25–41.

and successful life. The letter of the king was always read before that of the Phraklang, showing their relative ritual status. In the early period the two letters were often identical in meaning, which sometimes led the VOC scribes to simply note that the Phraklang's letter had the same content as that of the king, just with lesser presents, instead of copying it down. With the ascension of Phetracha, Siamese kingship became more aloof and ritualised. The king almost completely disappeared from the public as part of his cultivation of an image of an otherworldly ruler, who did not live in the same world as his subjects. This also affected the diplomacy of the kingdom, by putting an end to royal audiences for the VOC.[104] Originally the king had directly communicated his wishes and demands to the Governor-general, with the Phraklang essentially repeating them and also reminding the company of how useful he was to them, to ensure that he would receive gifts from them. But as the king became more distant, his role in diplomacy also became more symbolic. His letters were now limited to well wishes and to affirmations of the importance of mutual friendship. All topics of actual relevance were communicated in the letters of the Phraklang.

After the formalities were taken care of, letters usually started by informing the other party that its presents had safely arrived and were found pleasing. Then responses would be given to the diplomatic issues which had been raised in the previous letter from the other party. Afterwards the author would add his own requests. Diplomatic issues were heavily dominated by trade. The Siamese king, especially in the seventeenth century, carried out foreign trade on his own as far away as Persia and Japan.[105] These ships doubled as envoys of the king, just as the VOC was the diplomatic representation of the States General in Asia. These royal ships sometimes required Dutch assistance if they got into trouble far from Siam but close to VOC outposts, which could help the company ingratiate itself with the king.[106] But the VOC also tried to limit the foreign trade of the king, which led to complaints from Siam. This was partially done through treaties, the implementation of which was often seemingly up to debate. The treaty of 1664 even forbade the king from using Chinese sailors on his own junks, something which would have ended his own trade as there were very few Siamese sailors.[107] The king therefore

[104] Bhawan, *VOC at Ayutthaya*, 158.
[105] For an overview of Siamese trade see Dhiravat na Pombejra, 'Crown Trade and Court Politics in Ayutthaya During the Reign of King Narai (1656-88)', in *The Southeast Asian Port and Polity: Rise and Demise*, ed. J. Kathirithamby-Wells and John Villiers (Singapore: Singapore University Press, 1990), 127–42.
[106] ANRI 2495, 477-478. This help often took the form of loans. In 1683 a very large loan was given to royal agents whose ship had sunk in the straits of Surat so that they could build a new ship to return to Siam with. The king was not pleased by this, which lead to a years long exchange of complaints surrounding this case.
[107] J. E Heeres and F. W Stapel, *Corpus diplomaticum Neerlando-Indicum* ('s-Gravenhage: Martinus Nijhoff, 1907), vols 2, 282 This prohibition was in place during the VOC conflicts with the Zheng state, and was meant to prevent Zheng trade in Southeast Asia.

protested these clauses and continued to employ Chinese merchants anyway. For a time he demanded that the VOC provide him with Dutch navigators to replace the Chinese ones, but these were not accepted by the crews.[108][109] Eventually the company just dropped the issue.

The other big issues were the hide and tin trades, for which the VOC often obtained a monopoly from the king.[110] However, in reality these monopolies were not always easily enforced. Dutch complaints about the lack of enforcement, and Siamese excuses for why this kept happening, were therefore also a constant presence in the letters. Differing interpretations of the meaning of the monopolies even led to a short withdrawal of the company from Siam during Süa's reign. One important reason for why the monopolies could not be enforced, apart from the fact that they were often disadvantageous to the Siamese king, was the fact that the tin was mined in areas of the Malay peninsula over which the sovereignty of the Siamese king was often more wishful thinking than political reality. Sometimes expeditions to rein in these unfaithful vassals were carried out and the king, especially early on, did not shy away from asking for Dutch help with these, promising that it would help the enforcement of their monopolies.[111]

The last part of the letter was again concerned with presents. The Siamese king, or the Phraklang in his stead, would openly state what gifts he desired. The Phraklang normally did not make his own request for presents, but rather repeated what his master wished for. The present for the Phraklang was usually the same as that of the king but lesser in quantity and quality, sometimes he received different items. The Governor-general refrained from stating what he desired. The goods given to him as presents only changed minimally, and their amount was determined by the Phraklang's evaluation of the value of the original present. Here again the gifts given by the Phraklang were the same as the king's but in lower quantity. From 1686 it seems to have become customary for the Phraklang to always gift 10 bahar of tin, no matter the size and composition of the king's presents.

[108] J. A. van der Chijs, H. T. Colenbrander, and J. de Hullu, eds., *Dagh-Register Gehouden Int Casteel Batavia Vant Passerende Daer Ter Plaetse Als over Geheel Nederlandts-India* (Den Haag: Martinus Nijhoff, 1887), vol. 16, 391–393, https://catalog.hathitrust.org/Record/000055532. Hereafter, simply DRB.
[109] DRB, vol. 16, 391-393.
[110] Smith, *Voc in Ayutthaya*, 65–67. While the export of all hides was given as a monopoly to the VOC, it only possessed a monopoly on tin mined in Ligor.
[111] Bhawan, *VOC at Ayutthaya*, 102–3.

Chapter II: Narai's Thirst for Knowledge

This chapter will explore the import of foreign firearms technology during the reign of Narai, one of Ayutthaya's greatest kings. First comes a short consideration of the major factors important for this thesis, that is foreign politics and trade during Narai's reign. Then the sporadic arms imports under Narai will be looked at, before examining why Siam was unable to supply itself with such firearms. The rest of the chapter is then concerned with how Narai tried to overcome these limitations. The chapter ends with Narai's demise in 1688.

Narai and the World

King Narai is the darling of Ayutthayan historiography, having gotten the most attention out of all its kings. Especially Narai's relations with the wider world, having expanded his horizon all the way to Arabia and Europe, have brought him the attention of global historians. But the (Western) fascination with Narai already began in his own days with his spectacular embassies to the court of Louis XIV in 1684 and 1686. To Narai's delight the Sun King responded with his own embassies in 1685 and 1687, which would ultimately contribute to Narai's demise. With his focus on foreign trade and the presence of many foreigners, some of them rising to the highest ranks, Narai embodies the idea of Ayutthaya as a cosmopolitan state oriented towards the sea.[112] The publication of many French reports of what they saw and experienced in their time in Siam in the 1680s has also done its part in drawing the attention of historians towards the king, especially to his last years.[113]

Narai became king in 1656, when he came out on top in the succession conflict caused by the death of his father King Prasatthong. With the help of the local Japanese and Malays, possibly also the Portuguese and Persians, Narai was able to eliminate two other candidates for the throne.[114] From 1660 to 1663 Narai was engaged in a series of wars with Burma and the Northern kingdom of Lan Na, which did not lead to an enlargement of his realm.[115] From 1670

[112] Narai's embassy to Portugal had been instructed what to answer if asked about the presence of foreigners in Siam, showing the importance Narai placed on it. They were to "Reply that there are Portuguese, Spaniards, French, English, Dutch, Chinese, Japanese, Moors and Malays, and several other nations. Some are in the king's service, others are merchants on their own account." Michael Smithies and Dhiravat na Pombejra, 'Instructions Given to the Siamese Envoys Sent to Portugal, 1684', *Journal of the Siam Society* 90 (2002): 132.

[113] The late Michael Smithies translated many of these works into English, although the most popular works had already been republished in foreign languages shortly after their original French publications.

[114] Bhawan, *VOC at Ayutthaya*, 113–15.

[115] Chris Baker and Pasuk Phongpaichit, *A History of Ayutthaya: Siam in the Early Modern World* (Cambridge: Cambridge University Press, 2017), 153; Damrong Rājānubhāb, *The Chronicle of Our Wars with the Burmese : Hostilities between Siamese and Burmese When Ayutthaya Was the Capital of Siam* (Bangkok: White Lotus,

to 1674 four expeditions were led into the territory of the Lao kingdom of Lan Xang, with diminishing success.[116] 1674 also saw an abortive campaign against Burma.[117] Narai intervened little in the several civil wars which shook Cambodia throughout his reign as he also had to send armies South to the Malay peninsula: Pattani rebelled against his overlordship in 1673, but was reconquered in the next year.[118] Nonetheless, another fleet had to be sent in 1677 to subjugate Pattani and Songkhla, an effort which only seems to have succeeded by 1680.[119]

Narai even engaged in short naval wars. At the end of 1662 the VOC blockaded Ayutthaya for four months, a crisis which was resolved without battle.[120] The raids against Lan Xang were accompanied with naval blockades of Cambodia.[121] More violent was his war against the Indian Sultanate of Golconda and the EIC in 1685-87, which consisted mainly of privateering.[122]

Trade went along with Narai's diplomacy, and royal junks were sent to trade to Arabia, Persia, India, China, the Indonesian archipelago, and Japan. Although the royal control of trade in Siam also increased, a large number of foreign traders nonetheless came to Ayutthaya under his rule. To deal with the competition, especially that of the Chinese traders, the VOC lobbied for monopolies with Narai. In 1662 it was granted the monopoly on exporting animal skins, and in 1664 it gained the monopoly on tin from Ligor, on the Malay peninsula. Even more royal favour accrued to the French, who enjoyed the support of the king's favourite in the 1680s, the Greek Constance Phaulkon. Converted to Catholicism after marrying his Japanese-Portuguese Catholic wife, Phaulkon nurtured the hopes of French missionaries and of Louis XIV that the king might also convert to Catholicism.[123] Phaulkon exerted great control over trade in Siam but lacked the clients and serfs from which the nobility usually drew its power. A small group of French soldiers was supposed to plug that hole, but when more than 500 soldiers arrived in

2001), Wars 19-21. As usual in Southeast Asian warfare, abducting people and livestock was a more important goal of these wars. The Lan Na capital of Chiang Mai was taken by Narai's troops, but already lost again in 1663.

[116] Dhiravat na Pombejra, 'A Political History of Siam under the Prasatthong Dynasty 1629-1688' (Doctoral Thesis, London, University of London, 1994), 308–11, 333, https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.296262.

[117] Ibid., 333.

[118] Ibid., 332.

[119] Ibid., 337–39.

[120] Ibid., 300–302.

[121] Ibid., 309 The exact connection between the Lan Xang raids and the blockade of Cambodia is not known. But Dhiravat speculates that Cambodia was blockaded to prevent the export of goods from Lan Xang through Cambodia.

[122] Ibid., 410–16 These wars were likely not intended by Narai, but caused by the English administrators of Mergui.

[123] Persian envoys in Ayutthaya at the same time were quite convinced that they could make a Muslim out of Narai.

Siam in 1687 it drew even more ire from Phaulkon's competitors. When Narai fell in 1688, the courtier Phetracha took power, executed Phaulkon, and drove the French out of the country.

Narai would appear to be the perfect king to show the import of firearms to Siam, and not only because of the exceptional amount of sources about his reign. He was also the king that put the most emphasis on foreign trade, and the presence of foreigners, especially Europeans, in Ayutthaya was at its highest point. Additionally, he was an expansionist king, waging several wars on the periphery of Siam. Seen through Lieberman's model of state centralisation, Narai appears as the ideal customer for foreign firearms, as he had both the means and the motive. And yet, weapons imports seem to have been sporadic and low-level throughout Narai's reign.

Weapons imports under Narai

According Philip Hoffman's model firearms technology advanced at a faster pace in Europe than elsewhere because it saw a high level of sustained military spending for centuries. [124] This explains why European firearms technology was a popular import around the world. This does not preclude the importation of non-European firearms technology. There is however little evidence to suggest that this played a very important role under Narai's rule, even though three of Siam's main trading partners were among the most important non-European centres of firearms technology: Vietnam, China, and Japan.

The only evidence for intra-Asian arms trading under Narai is the arrival of a single ship, observed by the VOC, from Cochinchina (Southern Vietnam) which carried ammunition and weapons to Ayutthaya.[125] In this period however, both Vietnamese states also imported European firearms; the South from the Portuguese, the North from the VOC and later the EIC.[126] There is no evidence for arms imports from China. The export of firearms from China was illegal, which is of course not evidence that it did not happen. But neither the VOC nor Chinese sources seem to have witnessed such exports to Ayutthaya.[127] The Japanese must have exported firearms to Southeast Asia until the early seventeenth century. But together with the

[124] Hoffman, *Why Did Europe Conquer the World?*, 56. The first three of Hoffman's four conditions for advances in firearms technology boil down to sustained, high military spending.

[125] VOC 1362, fo. 993v. The list only notes the generic "geweer" making it impossible to know what weapons were transported. However the fact that "ammunitie van oorlog" was also on board makes it likely that the ship carried firearms.

[126] Verbeek, *Onder Faveur Van 't Canon*, 188–91.

[127] Sun Laichen, 'Saltpetre Trade and Warfare in Early Modern Asia', in *Offshore Asia: Maritime Interactions in Eastern Asia before Steamships*, ed. Kayoko Fujita, Shiro Momoki, and Anthony Reid, Nalanda-Sriwijaya Research Series (ISEAS–Yusof Ishak Institute, 2013), 163. According to Sun Laichen, this ban was first lifted for Siam in the 1770s. When talking about earlier weapons smuggling from China, he does not note any reports of such smuggling to Siam.

ban on Japanese leaving the country, guns also became more strictly regulated.[128] From then on, firearms production only happened on a very small scale in Japan.[129]

The Portuguese were the traditional suppliers of European firearms in Southeast Asia, both as merchants and as mercenaries. But the coming of the Dutch had greatly marginalised the Portuguese presence in Siam.[130] By the time of Narai, the Portuguese community was a group of poor Catholic mestizos with little connection to the Portuguese Empire. As they had no direct contact to the formal Portuguese empire, it would be difficult for them to obtain either the European arms or the experienced soldiers which had made the Portuguese such attractive allies in earlier times. Portuguese foreign trade involving Ayutthaya was almost wholly in the hand of merchants from Macau.[131]

The instructions for the ambassadors sent on the failed Siamese embassy to Portugal by Narai mention Siamese interest in Portuguese goods, but not in weapons. The ambassadors were instructed to say that since Narai's coronation cannon of all sizes are cast in Siam, so that there are enough in the country.[132] The instructions are not complete, so it is possible that more interest in weaponry was shown, however the comment on the cannon makes it unlikely. Not too much value should be put on the statement about Siamese cannon casting, as the main task of the ambassadors was clearly to project an image of Narai as one of the greatest kings of the world. As Dhiravat and Smithies note, the statement about Siamese soldiers being paid is also a blatant lie.[133]

English traders were active in Siam and sometimes brought weapons. In 1615 the EIC had gifted a few Japanese muskets and swords to the king and various nobles. Phaulkon suggested that the company gift some cannon and muskets to the king, but their number is not known and it is possible that the muskets were even rejected by the king.[134] The account books of Edmund Udall list 104 cannon; 98 described as old, the others as ballast guns. They were presumably sold in Siam, although no customer is given.[135] As will be explained below, they

[128] See section "Gun Control in Siam" below.
[129] Alex Astroth, 'The Decline of Japanese Firearm Manufacturing and Proliferation in the Seventeenth Century', *Emory Endeavors in History* V (2013): 144–46.
[130] For the Portuguese of Ayutthaya, see Stefan Halikowski Smith, *Creolization and Diaspora in the Portuguese Indies: The Social World of Ayutthaya, 1640-1720* (Leiden: Brill, 2011).
[131] Sporadically there were Portuguese ships sailing between Ayutthaya and Macao, but this trade was in the hand of the Portuguese of Macao. Ibid., 70.
[132] Smithies and Dhiravat na Pombejra, 'Instructions to the Envoys', 131–32.
[133] Ibid., 132, endnote 59.
[134] Anthony Farrington and Dhiravat na Pombejra, eds., *The English Factory in Siam, 1612-1685. 2 Vols.* (Norfolk : British Library Publishing Division, 2007), 761. The possibility of rejection is raised here. There are no records indicating whether the muskets were ultimately gifted or not.
[135] Ibid., 991.

must have been sold either to the king or to foreign traders. But there is no indication in the sources of the EIC that it engaged in a sustained arms trade. Thomas Abeene, an English interloper who visited Siam once in 1683, brought European cold weapons and firearms with him. He was unable to sell his whole cargo before leaving, but this cargo did not only include weaponry.[136] Importantly, Abeene had recently come from England, and was about to return there.[137] There were many other English traders active in Siam, but they did not sail to Europe, which meant that to import European weapons they would have had to buy them from other Europeans in Asia.

Both the French and the VOC gave guns to the king as presents. Narai's fascination with the outside world was reflected in the presents which he desired. He liked exotic goods, such as European cloth and hats, clocks, mirrors and other glasswork, as well as birds of paradise.[138] European weapons on the other hand, were not among his usual requests from the VOC. A few requests were made however, and the VOC sometimes gave weapons as gifts without request. In 1660, Batavia gifted Narai 2 bronze cannon with 50 balls, as well as 3 muskets, with another 2 small cannon gifted in 1666.[139] In 1665 the king tried to buy copper from Japan for cannons and requested a gun founder from the VOC, both unsuccessfully. This likely made the Governor-general choose these two cannon as a present.[140] In that same year the king requested some iron cannon for the use on his ship, in response to which the Governor-general sent him twelve iron cannon from which to choose however many he liked. These cannon were not part of the ordinary present but would have to be paid for separately. Unfortunately their prices have not survived.[141]

Small arms were also gifted by the company occasionally. But this always concerned low numbers of high quality luxury arms which must have been intended for use at court and not by the army. In 1684 for example, the king was gifted 3 fine muskets, 2 carbines, as well as 5 pairs of pistols. The Phraklang received 1 musket, 1 carbine, and 2 pairs of pistols.[142] The most interesting gifted small arms came in 1680, when the Governor-general could not provide

[136] VOC 1407, fo. 3220r-3221v.
[137] According to EIC employees in Siam, Abeene had very unsuccesfully traded in the Indies before coming to SIam. John M. D. Anderson, *English Intercourse with Siam in the Seventeenth Century* (London: Kegan Paul, Trench, Trübner, & Co., Ltd, 1890), 211, https://books.google.nl/books?id=PrA2AAAAMAAJ&hl=de&pg=PP8#v=onepage&q&f=false.
[138] Narai's interest in foreign goods has drawn scholarly attention, most recently by Swan, 'Dutch Diplomacy and Trade in Rariteyten: Episodes in the History of Material Culture of the Dutch Republic'.
[139] DRB, vol. 13, 187; DRB, vol. 17, 200.
[140] These must be the bronze 2-pounders mentioned by John Verbeek. They were produced in Batavia, by Lourens Oxen van Husem. Verbeek, *Onder Faveur Van 't Canon*, 156.
[141] VOC 891, 514. Neither do we know how many of them Narai bought.
[142] ANRI, 2497 1048.

the gifts requested by the king, and instead sent a few firearms. Among these was one "very long Ceylonese musket inlaid with silver", one pair of fine pistols and six Ceylonese partisans, both inlaid with silver.[143] While not explicitly titled as such, the pistols must also have been Ceylonese.[144] They obviously found the approval of the king, as in 1682 more Ceylonese weapons were sent, "made on Ceylon expressly for the king."[145] While far too few to have any military impact, the ownership of such rare weapons from Ceylon, the birthplace of Theravada Buddhism, must surely have benefitted the status of the king.

The French might have been the most important weapons suppliers for Narai, even though their weapons arrived too late to be of any use to him. The French ship *Voiltour* which arrived in 1681 brought along 3 cannon as gifts for the king, which were warmly welcomed.[146] The first proper French embassy reached Siam in 1685.[147] Among its presents were "several guns and small pistols, of admirable workmanship."[148] Interestingly, the first item on the list of gifts presented to Louis XIV by the first Siamese embassy which reached Versailles in 1686 were two cannon made in Siam.[149]

The second French embassy, reaching Siam in 1687, brought with it gifts of an enormous value, 175,131 livres or more than f. 450,000. Among these were 12 muskets and 8 pairs of ornate pistols, but no cannon.[150] With this embassy the Siamese ambassadors that had gone to France also returned to Siam. While there, Ambassador Kosa Pan had gone on a shopping spree for the king. Among his orders in Paris there were an astonishing 160 cannon, as well as 200 blunderbusses. These purchases were likely paid for by the Compagnie des Indes, to be repaid by Narai with privileges and trade goods.[151]

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[143] A partisan is a type of polearm with a very long spearhead.

[144] Not only were they also inlaid with silver, but they were also listed in between the musket and the partisans, both of which were described as Ceylonese, instead of with the 4 other fine muskets, two of which were gilded, that were also sent.

[145] DRB, vol.30, 595.

[146] DRB, vol. 29, 66.

[147] For an overview for the exchange of embassies between France and Siam, see Giorgio Riello, '"With Great Pomp and Magnificence": Royal Gifts and the Embassies between Siam and France in the Late Seventeenth Century*', in *Global Gifts: The Material Culture of Diplomacy in Early Modern Eurasia*, ed. Anne Gerritsen, Giorgio Riello, and Zoltán Biedermann, Studies in Comparative World History (Cambridge: Cambridge University Press, 2017), 249–50.

[148] Chevalier de Chaumont and Abbé de Choisy, *Aspects of the Embassy to Siam 1685: The Chevalier de Chaumont and the Abbé de Choisy*, ed. Michael Smithies (Chiang Mai: Silkworm Books, 1997), 43.

[149] Michael Smithies, ed., *The Discourses at Versailles of the First Siamese Ambassadors to France, 1686-7: Together with the List of Their Presents to the Court : In the Original French Together with a Translation Into English* (Bangkok: The Siam Society, 1986), 82. These two cannon were used at the storming of the Bastille in 1789. Both of them have survived to this day.

[150] Riello, '"With Great Pomp and Magnificence": Royal Gifts and the Embassies between Siam and France in the Late Seventeenth Century*', 256.

[151] Ibid., 259–60.

To sum up, there was no coherent pattern of Narai buying European weaponry. The court received very small amounts of luxury muskets and pistols from the Dutch, and a few cannon were also delivered by them. The largest shipments were that of 104 old English cannon, as well as the 160 cannon and 200 blunderbusses which Kosa Pan bought in France for Narai. The king does not seem to have shown the interest in foreign weapons which he should have had to wage his wars, but his European partners also did not try to keep them from him.[152] The VOC even provided cannon only a few years after having blockaded Ayutthaya. But why would Siam have had to import foreign weapons in the first place? This was because the weapons industry in Siam was in a very primitive state compared to that in Europe. Changing that seems to have been the real goal of Narai, instead of simple arms imports.

Weapons production in Siam

The necessary factors for a flourishing arms industry are the availability of sufficient raw materials, technology, skilled labour, and demand.[153] Siam did not possess these to the same extent as the Netherlands, or Western Europe as a whole. The raw materials were likely the smallest obstacle. Besides sitting on some of the richest tin deposits of the world, Siam also possessed iron and copper mines.[154] La Loubere knew of these mines, and even reported that "the city of [Kamphaeng Phet] is famous for mines of excellent Steel(sic!). The inhabitants of the country do forge arms thereof after their fashion, as Sabres, Poniards, and Knives."[155] But he was not impressed with Siamese ore smelting, and found them to use very little iron, with nails being a rarity and ships' anchors being made of wood.[156] Wood to make charcoal from was also more than abundant in Siam, so fuel for smelting and smithing was not a problem either. What was lacking compared to the Netherlands, was a hinterland from which parts could be imported, such as the Dutch cities received from Liege and Germany. Metals such as copper and spelter were however imported in Siam.[157]

While sources on Siamese crafts are not abundant, it can be stated that metal working, except for that in gold, was not highly developed in Siam. As the most important parts of firearms were made of iron and bronze, this created a labour problem for a Siamese firearms industry. The crafts in general were not of great importance in Siam, and were dismissed by both Nicolas Gervaise and Simon de La Loubere. While their knowledge of the country was

[152] The VOC followed all of his requests for weapons, and Kosa Pan was allowed to buy cannon in France.
[153] Krause, *Arms and the State: Patterns of Military Production and Trade*, 12.
[154] Reid, *Age of Commerce I*, 108.
[155] de La Loubere, *Historical Relation of Siam*, 14.
[156] Ibid., 13–14.
[157] VOC 1330, 691r.

admittedly limited, having been in the country only for three years or three months respectively, there are other facts which support their assessment.[158] The most important of these are Siam's exports. Exports from Siam were overwhelmingly of two types: Natural products of the land, such as rice, skins, tin, and various forest products, or foreign goods that were re-exported. The only exception to this seems to have been Siamese ceramics, although it is unclear how important they still were by Narai's time, as neither of the French authors mention them.[159]

Gervaise and La Loubere agree that the Siamese were lazy, but the latter also provided another explanation for why craftsmen were so rare in Siam.[160] According to La Loubere, the Siamese did not want to excel in any craft "for fear of being forced to work gratis all his life for the service of this Prince", instead of the six months of unpaid labour they already owed the king every year. Therefore even the worst European craftsmen were very welcome in Siam as they were better workers.[161] La Loubere considered the Siamese "bad Forge-men", while Gervaise found Siamese "coppersmiths, armourers and blacksmiths" to be "less skilled than ours but know their trade well enough to supply the needs of the country." However, "they are not good at founding bells or cannon, although they sometimes try their hand at this, because they have never learnt the correct mixture and proportions to use to ensure a successful result."[162] Beyond the lack of individual skill, Gervaise therefore also saw a lack of more general knowledge about metallurgy. La Loubere knew of a Portuguese who had cast some cannon in Ayutthaya, but questioned whether the Siamese themselves were capable of it.[163] It should be kept in mind that the French visitors were only familiar with the area around Ayutthaya itself, while iron mines and iron workers were concentrated further north, close to the border with Burma, making it likely that some of the best metalworkers were out of their sight.[164]

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[158] For the ways in which Gervaise and La Loubere approached and presented Siam, see Sven Trakulhun, 'The View from the Outside - Nicolas Gervaise, Simon de La Loubère and the Perception of Seventeenth Century Siamese Government and Society', *Journal of the Siam Society* 85, no. 1 & 2 (1997): 75–84.

[159] Reid, *Age of Commerce I*, 105. Reid simply reports their importance in the "15th to 17th century". VOC shipping lists only note a single export of ceramics, to Mokka.

[160] Nicholas Gervaise, *The Natural and Political History of the Kingdom of Siam* (Bangkok: White Lotus, 1989), 87; de La Loubere, *Historical Relation of Siam*, 69.

[161] de La Loubere, *Historical Relation of Siam*, 69–70.

[162] Gervaise, *The Natural and Political History of the Kingdom of Siam*, 92; de La Loubere, *Historical Relation of Siam*, 70.

[163] de La Loubere, *Historical Relation of Siam*, 91.

[164] Reid, *Age of Commerce I*, 109. At the same time, Reid argues that the best artisans usually worked under royal patronage at court. This would undoubtedly be true for the firearms that fell under the royal monopoly. So while metalworking as a whole in Siam may have been misjudged by the French, they should have had a more well-founded understanding of the arms makers.

Besides La Loubere's view that possessing exceptional skills was undesirable for Siamese artisans, another big barrier to the technological improvement and to the viability of a Siamese arms industry was the low demand for weaponry. Large wars were extremely common in Europe during the time period. In the 53 years between 1656-1709, the Dutch Republic was at war for 34 years, after a century of continuous warfare.[165] While Narai was certainly not averse to warfare, the conflicts between Siam and its neighbours were much shorter than the sustained wars of Europe.

The bulk of the Siamese soldiers in these conflicts were not only unpaid, they even had to provide their own armament, further lowering the importance of the state as a customer.[166] Firearms were however an exception to this, as they were subject to a royal monopoly. As the state had pay to provide guns for its troops, while they brought more traditional weapons themselves, this also disincentivized the use of guns. The monopoly on guns is of crucial importance to understand the production and importation of firearms in Siam.

Gun Control in Siam

The Siamese royal monopoly on guns was an extremely strict form of gun control, an issue for states all over the early modern world.[167] The spread of firearms created a set of problems, which states tried to solve in various ways, all of which came with their own problems. The main tension was that between wanting to maintain a strong military and military industry for external defence, and wanting to limit the spread of firearms to prevent their use for criminal and seditious purposes.

In sixteenth-century Venice and seventeenth-century Denmark the state eventually decided on a loose gun control policy, encouraging private gun ownership in order to bolster the size of citizen militias.[168] The private ownership of guns not only allowed burghers (and in some cases peasants) to train with their weapons in peacetime, it could also shift the cost of armament from the state to the population.[169] At the same time, both states acknowledged that

[165] Only counting conflicts against other European powers. If all extra-European fighting by the VOC and the WIC was considered, there would likely be no peaceful year for the Dutch.
[166] Charney, *Southeast Asian Warfare*, 223.
[167] The role of weapons in Early Modern society has been investigated in several recent monographs such as Ann B. Tlusty, *The Martial Ethic in Early Modern Germany: Civic Duty and the Right of Arms* (New York: Palgrave Macmillan, 2011); Lois G Schwoerer, *Gun Culture in Early Modern England* (Charlottesville: University of Virginia Press, 2016); Satia, *Empire of guns*.
[168] Gunner Lind, 'Gun Control and National Defence in Sixteenth- and Seventeenth-Century Denmark', *War in History* 28, no. 3 (2021): 498–99; Catherine Fletcher, 'Firearms and the State in Sixteenth-Century Italy: Gun Proliferation and Gun Control', *Past & Present*, 13 December 2022, 12–14, https://doi.org/10.1093/pastj/gtac027.
[169] Even so, both Venice and Denmark went as far as distributing guns among the citizenry when necessary.

private gun ownership allowed poaching, threatened the social status of the nobility as the only class which could openly carry weapons, and aided murder and banditry; these evils were accepted to guarantee national defence. In Tokugawa Japan (1603-1876), gun ownership was more strictly regulated but nonetheless permitted.[170] The goal here was not military service, but the use of guns for hunting.[171] As the state concentrated the production of firearms in a single city and forbade imports, it also took control over the amount of guns in circulation, preventing the nobility from acquiring enough guns to threaten Tokugawa rule.[172]

As it acted as a state in its Asian possessions, gun control was also a concern for the VOC. It therefore at times also issued laws to limit the spread of firearms among its subjects. The enactment of such laws in Amboina in the seventeenth century seems to be the basis on which Gerrit Knaap formulated his thesis that the VOC "attempted to curb the diffusion of its relatively advanced weaponry to indigenous peoples and potential enemies."[173] I argue that this is a misinterpretation of *local* arms control laws as company policy against arms *exports*. Similar legislation also existed on Ceylon for example.[174] The Ceylonese law not only prohibits the sale of gunpowder, muskets, cannon, and shot to all natives, but also that of pikes. Pikes were certainly not some advanced European technology but very common throughout all of Eurasia. As this law was directed at all weapons, not only advanced European ones, it should be understood as a measure to keep the population unarmed. Europeans, who were ideally part of a civic militia, were not covered by this law. This means that in case of an uprising against Dutch rule, the company could expect that its regular troops and militia would be the only properly armed fighters in the area. The export of weapons to other states, by the company itself, is not covered by this law which governs local interactions between European and Asian subjects.[175] Knaap therefore considers smuggling by VOC employees as the main source of VOC weaponry for Asians, overlooking the company's role as arms supplier.[176]

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[170] Tamara Enomoto, 'Giving Up the Gun?: Overcoming Myths about Japanese Sword-Hunting and Firearms Control', *History of Global Arms Transfer*, no. 6 (July 2018): 55. Enomoto convincingly disproves the notion long held among Western historians, and even some in Japan, that guns were wholly 'given up' in Japan. Rather, Japan instituted a strict form of gun control, similar to other states.

[171] Ibid., 51.

[172] Astroth, 'Decline of Japanese Firearm Manufacturing', 141–42.

[173] Knaap, *Genesis and Nemesis*, 302–3.

[174] VOC 2622, 2777. This is restatement of a law originally from 1658, in 1744. More examples from other areas can undoubtedly also be found.

[175] That is not to claim that the VOC never restricted the transfer of arms. How it made such decisions, is an important future research topic.

[176] Very strangely Knaap cites the gift of a few bronze cannon to Jambi and Mataram as the exception of the VOC's refusal to export of artillery, overlooking its decades long sale of cannon to Tonkin described by Hoang Anh Tuan, even though Hoang's book appears in Knaap's bibliography.

According to Michael Charney, royal monopolies on firearms were common throughout Early Modern Southeast Asia. Guns were monopolised by the ruler, and only handed out to the troops when they were actually to be used, which meant that skill in using them was lacking. Yet it also prevented the use of the guns against the ruler.[177] Such a monopoly has been described by Gervaise and La Loubere for the time under Narai, and can also be found in the VOC correspondence if one looks for it.[178] In 1707 for example, Director Arnout Cleur recommended a small gift of only one or two pairs of fine guns to the Phraklang, as "that small number, appears not to be taken away by the king."[179] The Phraklang was never gifted more than 20 guns, usually only 4, no matter how many were given to the king.

At the same time, there were limits on gun control in Ayutthaya. Namely, foreigners could have guns. Volkerus Westerwolt reported that during the attack on the palace that made Narai king "no other than the Malays and the Japanese were armed with muskets."[180] He also noted that Siamese men only fought with pikes and swords, and did not own firearms. It is understandable that trading communities needed firearms to deal with pirates, but it is strange that they were allowed to keep them with themselves in Ayutthaya and did not have to hand them over to the king during their stay. This made armed foreigners important factors in succession conflicts.

But guns could also be used to settle issues of succession by the Siamese. When King Phetracha died in 1703, he was followed on the throne by his eldest son Prince Sorasak, now known as King Süa. Phetracha however also had a son with the daughter of King Narai Princess Yothatep, known as Prince Phwan, who had a strong claim on the throne through his descent from Narai. Süa claimed that he would act only as a regent for Phwan until he was old enough to rule by himself. This was understandably doubted by Yothathep, who hatched a plan to have Süa assassinated.[181] When he went out in public to visit the corpse of Phetracha, Süa was to be shot by the pages of Phwan with muskets, as well as by the prince himself who would use pistols from horseback. Guns were clearly seen as reliable weapons by the Siamese, as failing to actually kill the king would lead to the demise of all those involved. The problem was getting those guns.

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[177] Charney, *Southeast Asian Warfare*, 67.
[178] de La Loubere, *Historical Relation of Siam*, 93; Gervaise, *The Natural and Political History of the Kingdom of Siam*, 95.
[179] VOC 1637, 19. "welk kleen getal, den selven apparent doorden Coning ook niet sal werden ontnomen."
[180] Bhawan, *VOC at Ayutthaya*, 116.
[181] The retelling of this assassination attempt is based on a report by Cleur, "*Relaas van 't voorgevallene bij de Ziekte en overlijden van den Siamse Koninck Phra Trong Than Genaamt*" found in VOC 1691, 61-74. Cleur claimed to have heard this from a trustworthy minister.

A trusted Page of Phwan was sent to the royal armoury, requesting the guns under the pretence that the prince wanted to train with them. This was initially declined, and the guns were only given out after a second request, in which the page promised to inform the king of taking the guns in the next two days. A lady-in-waiting, who had been humiliated by Yothathep, revealed the plot to Süa who now made plans to kill Phwan. Soon after, the head of the armoury informed the king of the guns given out to the page. The king summoned Phwan, interrogating him on why he needed these guns. While nothing in the country could be denied to the future king, Süa said that he could not exercise with the guns, because the gunpowder was not trustworthy and this was therefore dangerous. Rather, the prince should practise horse riding. Doing just that a few days later, the young prince was lured off his horse by four ministers, taken to a walled-off section of the royal gardens and beaten to death with a sandalwood club.[182] While the betrayal of the lady-in-waiting gave the king an advance warning of what was happening, he was ultimately also alerted by the armoury that guns had been taken. At this point it must have become obvious to him what was happening, as royal succession in Siam was almost always accompanied by murder. The royal armoury system therefore served as an effective tool of preventing the use of firearms against the king.

At the same time, shooting exercise seems to have been a reason for which guns could be taken from the armoury during peacetime, at least with royal permission. Target shooting was a courtly pastime in the Ayutthaya period.[183] In a letter sent by the Phraklang in 1702, it is stated that many muskets are needed in Siam, as "so many muskets are being sent to all places in the Siamese kingdom, both big and small, to use them everywhere." The same letter also seems to comment on banditry, as it talks about criminals running away with guns.[184] So at least by the rule of Phetracha, there must have been more than one armoury at which the royal guns were stored, which understandably also made illicit access to the guns easier. Here the general dilemma of gun control returns, as concentrating all the guns in the capital would mean that they cannot be used in the border areas, but allowing guns to leave direct oversight also increases the chance of misuse for rebellion or banditry.

The focus on gun control usually lies on small arms, as acquiring and using cannon is quite difficult for civilians anyway. But private merchants were an important customer for cannon, as pirates and privateers made the seas dangerous. This demand was quite lacking in

[182] This was the preferred method of killing in Siamese succession conflicts, as it prevented the shedding of royal blood.
[183] C. A. Seymour Sewell, 'Notes on Some Old Siamese Guns', *Journal of the Siam Society* 15, no. 1 (1922): 2.
[184] VOC 1648, 186. That arms control, of whatever nature, was less strict for the nobility was commonplace from Italy to Japan, with the open carrying of weapons often a noble privilege and status symbol.

Siam however. In addition to the monopoly on firearms, royal control on foreign trade was very strong and by the end of Narai's reign had also become a royal monopoly.[185] Siamese ships were therefore only fitted out by members of the court. Most of the shipping in Siam was carried out by foreign merchants, who would buy their ships' armament at home.[186] The royal fleets, which mostly employed very small cannon by the standard of European navies, must have been the main customers of cannon in Siam. This would partially explain the lack of skilled cannon founders in Siam.[187]

That there were many factors holding back the Siamese arms industry is clear. While this would make weapons imports a logical choice, Narai was more interested in improving the domestic industry. This will be demonstrated in the remainder of this chapter, when looking at Narai's attempts to acquire foreign experts to enhance Siamese crafts and armies.

Dutch Experts in Siam

Foreign experts were commonplace in Siam, especially under the rule of Narai. While military experts were welcome all over Southeast Asia, most of the "Siamese" shipping was also carried out by foreigners. Next to the useful skills they brought with them, the appeal of foreigners was also that they were not part of the Siamese nobility, and therefore were less of a threat to the power of the king.[188]

With his frequent contact with the VOC, Narai had the chance to gain experts with rare skills, that were not common among regular European travellers in Asia. As the VOC empire grew, it had to acquire many capacities that ordinary traders did not need but that were required for states, such as an army. Most of these capacities were concentrated in Batavia, in which the company had many workshops producing for its own needs. Batavia was therefore the nearest

[185] The exception to this being Phaulkon, who had gained enormous influence over Siamese trade by the end of his life. Remco Raben, 'Ayutthaya, Koning Phetracha En de Wereld', in *Hof En Handel: Aziatische Vorsten En de VOC, 1620-1720* (Leiden: Brill, 2004), 264.

[186] According to de Jongh, in 1630 the Dutch merchant fleet carried more than 6,000 cannon. This number includes only ships that sailed beyond France. While the ships sailing closer to the Netherlands were more lightly armed, their sheer number would surely add several thousand more guns to this. Jong, *Staat van Oorlog: Wapenbedrijf En Militaire Hervormingen in de Repbuliek Der Verenigde Nederlanden 1585-1621*, 118.

[187] The English cast iron gunfounders, once supplying customers all over Europe, lost their leading position when their exports were heavily restricted by the state. This allowed the Dutch in Sweden to establish themselves as the leading iron casters, doubtlessly with aid from newly unemployed English founders. Ruth R. Brown, '"A Jewel of Great Value": English Iron Gunfounding and Its Rivals, 1550-1650', in *Ships and Guns: The Sea Ordnance in Venice and in Europe between the 15th and the 17th Centuries*, by Carlo Beltrame and Renato Gianni Ridella (Havertown: Oxbow Books, 2011), 98–105.

[188] Dhiravat na Pombejra, 'Crown Trade', 127–28. Foreigners could reach ranks as high as that of Phraklang, or of regional governors.

(if limited) centre of European technology for Siam. It is therefore unsurprising that Narai frequently requested that the company send technical experts to serve at his court.

Narai did not only request military specialists from the VOC. In fact, as can be seen from Table 1, most of the craftsmen he requested were of a civilian nature. He therefore perceived that he could profit not only from the expertise which had been built up on the European battlefields, but that Siam could also learn from the Dutch in more traditional crafts that were already practiced in Siam.

Table 1. Experts requested by the Siamese court from the VOC, 1656-1688.

Profession	Civilian/Military	Requests	Sent
Constable	Military	12	5
Goldsmith	Civilian	10	5
Mason	Civilian	8	2
Carpenter	Civilian	7	2
Gun founder	Military	7	1
Navigator	Civilian	6	1
Engineer	Military	5	0
Powdermaker	Military	5	2
Smith	Civilian	3	1
Painter	Civilian	2	1
Brickmaker	Civilian	1	0
Weaponsmith	Military	1	0
Surgeon	Civilian	0	1

Source: Appendix 1.

This is especially interesting in regard to the most requested civilian profession, that of goldsmith. Gervaise singled out goldsmithing as a field in which the Siamese were very proficient, "scarcely less skilled than" the French.[189] La Loubere was less convinced by Siamese goldsmithing, but judged them "excellent gilders."[190] Narai's interest in Dutch goldsmiths stemmed from their skill in enamelling. This skill must have been wholly lacking in Siam, as Narai not only requested enamelled goods as presents, he went as far as sending objects to the Netherlands to be enamelled there.[191] The function of the carpenter is somewhat unclear, as it was once specified that he should be skilled in the construction of fortifications.[192] At other times a "house carpenter" was specified.[193] Wooden house building was a very widespread craft

[189] Gervaise, *The Natural and Political History of the Kingdom of Siam*, 92.
[190] de La Loubere, *Historical Relation of Siam*, 70.
[191] This shows Narai's interest in enamelled goods, as it could take years until something sent to the Netherlands returned if it did at all. The king sent a golden suitcase to be enamelled, which was lost, along with 250 lives, when the ship *Ceylon* sunk on its return voyage to Batavia in 1680. DRB vol. 29, 537.
[192] DRB, vol. 20, 357.
[193] "Baas huistimmerman". DRB, vol. 28, 13.

in Siam, and the building of wooden fortifications is something more associated with Southeast Asia than with the Netherlands.[194]

Unfortunately, too little is known about the work these Dutch experts did at court, to judge why exactly some of them were desirable for Narai. More information on this may have been contained in the diaries of the director (*dagregister*), but for the period under consideration in this thesis the only surviving diary covers ten months in 1689.[195] It is therefore not possible to recount how they were employed, and what exactly they did for the king. But sometimes letters to the Governor-general, written either by the Siamese or by the Dutch director, do give us glimpses of what is happening with the experts. Together with the frequency with which certain experts were requested and sent, this makes possible an attempt to tease out the goals, and problems, Narai had with these specialists.

The most requested expert overall was the constable, an artillery officer. His tasks were sometimes further described by the Siamese as "one who is skilled in war and can use cannon well", clarifying his role.[196] He was to be skilled at firing a cannon, as well as in more general warfare. He thus combined the skills of a soldier, trainer, and military advisor in one. His skills did not provide any technology, but they could allow the Siamese to make use of European advances in war making nonetheless. They could do this both in the capital, by acting as instructors, or on the battlefield. The constable sent in 1660 accompanied Narai's armies to Chiang Mai at the end of 1660, together with four other company servants and 150 Portuguese mestizos from Ayutthaya.[197]

Providing constables should not have been a big problem for the VOC, as they were present on the ships, as well as among the Company army. Yet, the Company personnel was not necessarily as skilled as might be expected. The constable sent to Siam in 1668 professed that he did not know much about cannon, whereafter the king sent him back to Batavia instead of off to war.[198] Of course this was not the case with all of them.[199] But the recruitment of enough, and especially of capable, soldiers was always a problem for the Company. Even more so than the regular Dutch forces, the VOC army attracted mainly poor foreigners from Northern Europe. Having to spend five years at the other end of the world after a very dangerous journey

[194] Charney, *Southeast Asian Warfare*, 82–86. Bricks were also very common for fortifications in Southeast Asia, and Gervaise considered Siamese bricks to be the best in the world.
[195] A list of the surviving dagregisters can be found in the TANAP reconstruction of the Siamese archive.
[196] DRB, vol. 18, 210. Een die verstant van den oorlogh had en wel met het geschut omgaen can.
[197] VOC 1236, 144.
[198] DRB, vol. 18, 210.
[199] DRB, vol. 28, 12.

was not compensated by the low wages the company paid.[200] It is therefore not surprising that the company did not always provide the king with top notch soldiers, as it had a shortage of them itself.

Gun founders were the next most requested experts. As described above, there is no doubt that gun founding was much less developed in Siam than in the Netherlands, and that it was usually carried out by foreigners. At times the request for a gun founder was qualified as being someone who can cast iron cannon specifically.[201] This was a big problem for the company. As the Governor-general pointed out to the king, only bronze cannon were cast in the Netherlands. Iron cannon were imported from Sweden, and as these were two separate crafts there were no iron cannon founders in the Netherlands. Additionally, the Governor-general explained that gun founders came from cold countries and that they only come to the Indies very seldomly. The heat that metal casting produced was too much for them to take in the hot tropical climate.[202]

The tropical temperatures (and diseases) must have been part of what prevented many skilled people from joining the Company. But many of its sailors and soldiers came from Scandinavia nonetheless. Getting gun founders was a real problem for the VOC, which failed its goal at permanently establishing a gun foundry at Batavia. A gun foundry was set up there in 1654 but it stopped operations at the latest by 1682. Only a single gun founder could be attracted to Batavia, Laurens Oxen, who might have been the founder that ultimately went to Siam.[203] The only other gun founder that offered his services to the Company was rejected, presumably because he was not judged to be good enough. Verbeek argued that no good gun founders were ready to go to Batavia, as the demand there was too low.[204] Even Batavia was therefore unsuccessful at getting a gun founder from the Netherlands.

Fortress engineers presented a similar challenge for the company. While the fortresses were the bedrock on which Company rule was built, their quality was not always up to European standards. This was largely caused by a shortage of skilled fortress engineers. As Erik Odegard has recently shown, many of the Company fortresses were built by amateurs not experts.[205] This not only questions the importance of the artillery fortress for European successes in Asia, but it

[200] Knaap, *Genesis and Nemesis*, 234–37.
[201] DRB, vol. 16, 393.
[202] VOC 903, 895.
[203] Verbeek, *Onder Faveur Van 't Canon*, 195.
[204] Ibid., 155–56.
[205] Erik Odegard, *The Company Fortress : Military Engineering and the Dutch East India Company in South Asia, 1638-1795*, 54.

also made it difficult for the VOC to send such engineers to Siam. The French would solve this problem.

Powdermakers were also in demand in Siam, but only two of them were sent. One of them died shortly after arrival, while the other was part of Narai's army sent against Songkhla in 1678.[206] The Siamese did not lack the ability to make gunpowder themselves. However, La Loubere thought that "they make very bad Gunpowder." He attributed this mostly to the bad Siamese saltpetre, which was made from bat dung, but which was also widely exported.[207] An EIC report from 1678 on the other hand deems the Siamese saltpetre to be "excellent good, and well refined as ever I saw."[208] The quality of the raw materials was likely not the only problem, as the manufacturing of gunpowder had made many advances in Europe that were not, or only very slowly, adopted in the rest of the world, such as corning.[209] These techniques were most easily used in gunpowder mills, but in Southeast Asia the production of gunpowder by hand was common. It is possible that there were gunpowder mills in Siam. At least there was a royal warehouse for gunpowder which exploded in 1700.[210] The provision of powdermakers should not have been a problem for the company, as it operated several gunpowder mills in Asia.

Very interestingly, a "weaponsmith" was only requested a single time.[211] The purpose of this man would likely not have been the production but the maintenance of weapons. In 1700 the Phraklang revealed that the Siamese were unable to carry out most necessary repairs on their Dutch muskets.[212] At the same time, the output of a single weaponsmith would have been very low, especially as he would also be unable to procure the parts which Dutch weaponsmiths

[206] Farrington and Dhiravat na Pombejra, *The English Factory in Siam, 1612-1685. 2 Vols.*, 338.
[207] de La Loubere, *Historical Relation of Siam*, 15.; For more on the Siamese saltpetre trade see Sun, 'Saltpetre Trade and Warfare in Early Modern Asia', 161–66. Gunpowder itself also never shows up as something that the court wished to import.
[208] Anderson, *English Intercourse with Siam in the Seventeenth Century*, 423. As the purpose of this report was to convince the government of the EIC to take up post in Siam again, the trade opportunities in Siam may have been exaggerated.
[209] Through corning gunpowder is formed into small grains, roughly the size of a peppercorn. Corned gunpowder burns slower and develops more power.
[210] VOC 1637, 11-12. Bhawan, *VOC at Ayutthaya,* 170-171, calls this "a gunpowder works" but the term used, *kruijthuijs,* indicates a building in which gunpowder is stored, not produced.
[211] What was requested was a *zwaardveger*. While this would traditionally of course have denoted a maker of swords, zwaardvegers also became involved in the manufacturing of small arms over time, and at least in the 19th century come to be a synonym of gunmaker. When the meaning of the term changed, is unknown. I have therefore chosen the more neutral term "weaponsmith", but in a collection of 100 prints of crafts in Amsterdam of 1694, the zwaardveger is a different craftsman from the roermaker. Zwaardveger are especially connected to the cleaning of weapons.
[212] VOC 1623, 85. In this passage, those making the guns in the Netherlands are titled "swaartvegers".

usually bought from abroad. Therefore, a substantial number of foreign experts would be needed to work with the same division of labour that was usual in European musket making.[213]

This draws attention to one thing: Narai was almost exclusively interested in artillery. Constables to operate it, gun founders to make it, gunpowder makers to produce the substantial amount of gunpowder cannons consumed, and engineers to build European style "artillery fortresses."[214] Handheld firearms on the other hand play almost no role. This is reinforced by what we know of weapons purchased under Narai. As shown above, they were almost exclusively cannon, with a few luxurious small arms for the court sprinkled in. The largest purchase of small arms, 200 blunderbusses from France, was more than overshadowed by the 160 cannon that were bought alongside them. This suggests that either Narai had access to small arms through a different source, or that he did not consider them important for the wars he waged.[215] That is not to say the Siamese army under Narai did not possess or use muskets.[216] As will be seen in the next chapter, in his focus on cannon Narai was the total opposite of his successors.

In addition to their military value, cannon also carried great spiritual importance in Southeast Asia. This was especially true for very large cannon, which usually received their own name, and symbolised the power of the king. To bestow their magic power on the king, they did not have to be fired. It was enough that they existed, even if they were centuries old or broken. But most cannon actually used in battle were much smaller, and quite numerous.[217] There is evidence that Narai had a very large cannon cast during his rule.[218] But the cannon he received from the Dutch were small 2- and 4-pounders. Of the cannon sold by the EIC in Siam, 30 weighed more than 800 lbs, while the other 74 had an average weight 480 lbs.[219] This means

[213] Carlo Marco Belfanti, 'A Chain of Skills: The Production Cycle of Firearms Manufacture in the Brescia Area from the 16th to the 18th Centuries', in *Guilds, Markets and Work Regulations in Italy, 16th–19th Centuries*, ed. Alberto Guenzi, Paola Massa, and Fausto Piola Caselli (Aldershot: Asghate Publishing, 1998), 268. In Brescia the making of the barrel alone was already in the hands of four different workers.

[214] The very big impact good quality gunpowder could have on the effectivness of cannon has recently been demonstrated by Moumita Chowdhury, *Empire and Gunpowder: Military Industrialisation and Ascendancy of the East India Company in India, 1757-1856* (London: Routledge, 2023).

[215] Andaya, 'Interactions', 382 claims that the Siamese were 'competent in the production of handguns' on extremely flimsy evidence.

[216] There are many references to the use of muskets by Siamese troops in the memories of the Chavalier de Forbin(see below) although they don't seem to be used well.

[217] Reid, *Age of Commerce II*, 220–24.

[218] Charney, *Southeast Asian Warfare*, 48.

[219] Farrington and Dhiravat na Pombejra, *The English Factory in Siam, 1612-1685. 2 Vols.*, 991 Unfortunately the calibres are not given, but the total weight per category of cannon is given. They are 107 cwt for 6 cannon, 457 cwt for 24 cannon, 357 cwt for 74 cannon.

that they were likely six-pounders, and half or one-pounders respectively.[220] Neither the weight nor the calibre of the 160 guns bought in France are known, but they are unlikely to have been of large calibres, as otherwise their transport to Siam would have presented a problem.[221] This indicates that the cannon he bought were for military use, not prestige objects.

French Experts in Siam

Part of the attraction of the French for Narai undoubtedly came from their military power and knowledge. And indeed, together with French troops, Siam also received French specialists. The first embassy brought the Chevalier de Forbin with it, an officer of the French army. Forbin, along with the (amateur) fortification engineer le Mare, was forced to stay in Siam when the French embassy returned to France together with the Siamese ambassadors. Forbin was made admiral of Siam and governor of Bangkok, and together with le Mare tasked with building a new fortress there, as well as in Ligor and Songkhla.[222] As governor, Forbin was also tasked with drilling the troops from Bangkok "à la mode de France."[223] His accounts mention the presence of a considerable amount of other low-level European officers in the Siamese army. As he believed that Phaulkon was trying to kill him, Forbin abandoned his post for Pondicherry at the end of 1685. His post as governor was taken by another Frenchman while the drilling was put in the hands of an Englishman.[224] The Siamese ambassadors to France asked Louis XIV for enamellers, constables, fortress engineers, cannon founders, glass and mirror makers .[225] With the 500 French troops that arrived in Siam in 1687, came numerous officers, as well as a new governor for Bangkok and three additional fortress engineers and three glass makers, but not the other requested experts.[226] As the first task of the engineers was to build the fortresses in which the French troops would be housed, it is not surprising that Louis XIV ensured that they were sent.

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[220] Albert Mauncy, *Artillery Through the Ages: A Short Illustrated History of Cannon, Emphasizing Types Used in America* (Washington D. C.: Division of Publications, National Park Service, 1949), 35, https://books.google.nl/books?id=8zkj5UTzI1sC&hl=de&pg=PP1#v=onepage&q&f=false Iron cannon, which the English were likely to be, were heavier than bronze pieces of the same calibre.

[221] AN, Colonies, C^{I} 23, ff. 249-58: "Mémoire general de tout ce que le roy de Siam a ordonné à ses ambassadeurs de lui faire faire ou acheter en France", which is cited by Riello does not contain the cannon and blunderbusses ordered by the king, so that it is possible that no specification for them has survived.

[222] Claude Forbin, *The Siamese Memoirs of Count Claude de Forbin 1685-1688*, ed. Michael Smithies (Chiang Mai: Silkworm Books, 1996), 84. According to Forbin's own account, he was kept in Siam because if his pessimistic view of SIam had become known in France, Louis XIV would have stopped his contact with Narai. .

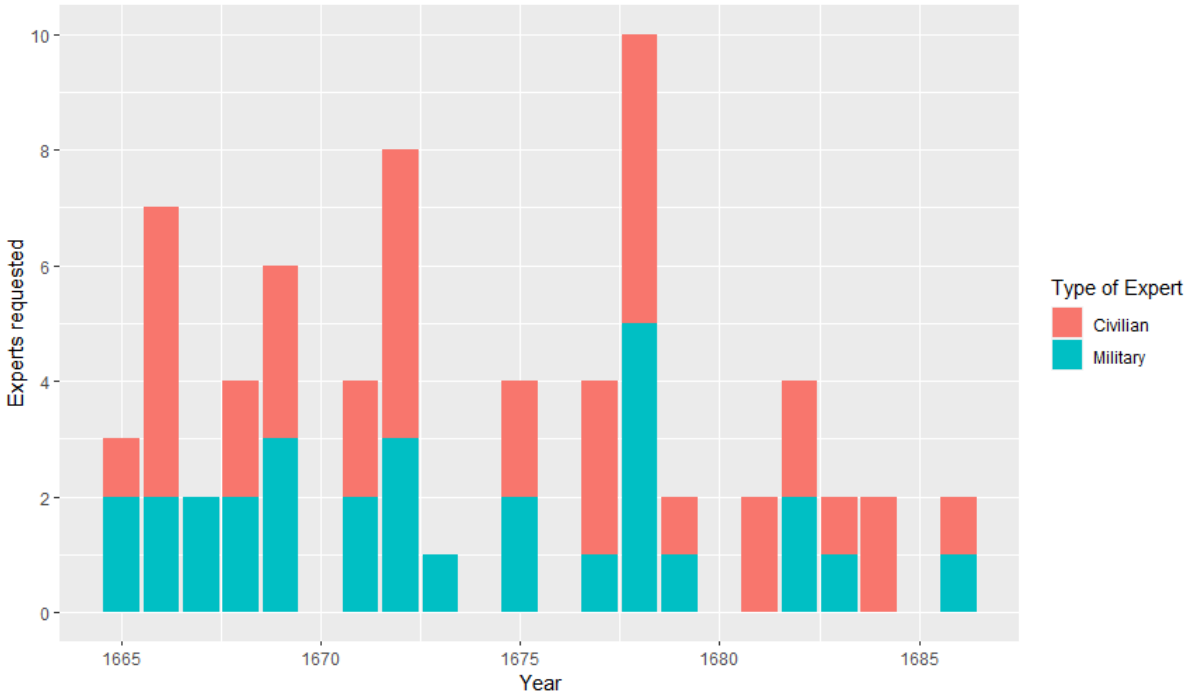
[223] Ibid., 98. Forbin says that this were 2,000 men, while La Loubere gave their number as 400.

[224] de La Loubere, *Historical Relation of Siam*, 91.

[225] Stéphane Castellucio, 'Louis XIV, Le Siam et La Chine: Séduire et Être Séduit', *Extrême-Orient Extrême-Occident* 43, no. 1 (2019): 32–33.

[226] Michael Smithies, ed., *Three Military Accounts of the 1688 'Revolution' in Siam*, Itineraria Asiatica, XI (Bangkok: Orchid Press, 2002), 87.

Figure 1. Siamese Requests for Dutch Experts



Source: Appendix 1. Typology of experts according to Table 1.

The availability of French experts almost completely stopped Narai from making requests to the VOC as can be seen in figure 1.[227] The last two Dutch experts requested were a smith and an engineer.[228] Requests for military experts were commonplace during the war-filled early years of Narai's reign, and they peaked at the end of the 1670s when he was at war on the Malay peninsula. It appears that with the increasing availability of French and English experts, together with the greater peace of the 1680s, there was little demand for Dutch military experts at the end of Narai's reign. Nonetheless, twelve Siamese youths were sent to Batavia in 1687 to become apprentice bricklayers, carpenters, and smiths.[229] Not an unreasonable plan considering the difficulty getting foreign experts could entail.

But foreign experts did not only have to be got, they also had to be maintained. Forbin abandoned his post, as he neither liked Siam nor saw much of a future for himself there. For the simpler craftsmen, who were not nobles with military careers, working for the king might have been more attractive. Narai wrote to the Governor-general to determine an appropriate salary for some of his experts. It was revealed then that Narai was paying a goldsmith 10 catty and 16 tael per year, equivalent to f. 1,555. A constable was paid 6 catty, or f. 864.[230] The Governor-general did not provide a wage for the constable, but said that the goldsmith was paid

[227] In his last request for presents Narai did request some bellows, which might have been for the use by Europeans.
[228] ANRI 2500, 715-716.
[229] Bhawan, *VOC at Ayutthaya*, 142–43.
[230] DRB vol. 22, 323. 1 catty consists of 20 tael. 1 tael is equivalent of 144 stuivers.

rdx. 48 or f. 144 per year by the company.[231] The king therefore paid almost 13 times as much as the company. If this seemed too good to be true, it likely was. The king was not the most punctual paymaster.[232] La Loubere also commented that many Europeans were lured into service by Indian princes with the promise of untold riches, but none of them had ever returned to Europe with them.[233] Beyond the considerable cost, assuming that the king actually paid, another problem with maintaining European experts was their habit of dying.[234] There are few mentions of experts returning to Batavia in the diplomatic letters, raising the suspicion that they did not. One unfortunate powdermaker got sick on his arrival in Siam and died before he could carry out any work at all.[235] Paired with alcoholism and lacking skills, this explains why the same types of experts were requested over and over again.[236]

The time of the European experts in Siam ended together with Narai's rule.[237] The strong presence of the French, who had become governors of Bangkok and Mergui where they were building new fortresses for their soldiers, had become unbearable for many nobles. After Narai died and Phaulkon was executed, no new experts were requested from the Dutch. Had Narai's project until then been successful? It is difficult to say. But it is unlikely that the erratic arrival of European experts succeeded in building either a Siamese arms industry or to lastingly improve the Siamese troops. Most of the French designed fortresses had also not been finished. We don't know how much of their service consisted of simply exercising their profession and how much time they spent training others. But their low numbers will have precluded any large impact. Even the VOC, which had direct access to Europe, struggled at setting up a European-style arms industry in Southeast Asia.

At the same time, the spread of foreign knowledge throughout Siam may not even have been Narai's intention. If important knowledge was limited to foreign experts, it could easily be kept under royal control as the experts were engaged through diplomacy. The lack of a domestic arms industry also increased the effectiveness of the royal monopoly on firearms. Otherwise guns could easily be sold illegally by producers.[238] Controlling a few foreigners who

[231] DRB, vol. 23, 122. The Rijksdaalder was valued at 60 stuivers by the VOC.
[232] Bhawan, *VOC at Ayutthaya*, 142.
[233] de La Loubere, *Historical Relation of Siam*, 70.
[234] This issue was of course not exclusive to the experts but also the other Company servants.
[235] DRB, vol. 18, 210.
[236] In 1669 the king requested a replacement for the goldsmith Jan Simonsz. Not only had he not been good at enamelling, he had also drunk himself to death. DRB, vol. 18, 472.
[237] The exception to this were the surgeons of the Brochebourde family, who served the kings into the 1730s.
[238] Weapons smuggling was a common problem, with which for example the Republic of Venice struggled. Luca Mocarelli and Giulio Ongaro, 'Weapons' Production in the Republic of Venice in the Early Modern Period: The Manufacturing Centre of Brescia between Military Needs and Economic Equilibrium', *Scandinavian Economic History Review* 65, no. 3 (2017): 237–38.

live at court and depend on the king was much easier. The same goes for the constables, who could only provide their expertise in the service of the king. So while Narai did not profit as much from foreign expertise as he could have, he also denied any possible advantage to all domestic rivals.

With the surrender of the fortress of Bangkok in 1688 the French made their last delivery of cannon to Siam, as they apparently forgot a few boats filled with cannon when retreating and the Siamese refused to hand them over afterwards.[239] According to the description of the siege given by Jean Vollant des Verquains, the engineer who was then responsible for the fortress of Bangkok, the Siamese carried out the siege of this unfinished European fortress quite well.[240] Vollant also alleged that most of the 180 cannon that the Siamese brought against the fortress were provided by the VOC.[241] That the VOC had provided weapons for the fight against the French was a common claim among French authors at the time, but it is not borne out in the VOC records. The VOC would not have had more than a handful of cannon at its factory in any case. But in a letter from 1700 the Phraklang did mention that the directors Keijts and Van den Hoorn had helped the Siamese with getting the French out of the fortress.[242] Whether this meant showing the Siamese how to besiege a European fortress, or whether the Dutch played a part in the negotiations between the Siamese and the French is unclear. The siege ended when the French, running low on food, made an agreement with the Siamese which allowed them to retreat from the fortress with full honours and to leave for French India. Under the new King Phetracha, a different approach would be taken to foreign technology.

[239] The weaker of the two forts at Bangkok had been abandoned by the French before the siege began, and its cannon had been made unusable. On the retreat from the main fortress 30 cannon were left behind.
[240] Smithies, *Three Military Accounts of the 1688 'Revolution' in Siam*, 139–40.
[241] Ibid., 140.
[242] VOC 1743, 129.

Chapter III: Phetracha and Süa: All Political Power comes from the Barrel of a Gun

This chapter investigates the changes to the Dutch-Siamese arms transfers under Narai's successors, Phetracha and Süa. It starts by looking at the issues that plagued post-Narai Siam: declining trade and domestic unrest. This led Phetracha to pursue a very different policy than Narai, which was continued by his son Süa. The chapter ends with Süa's death in 1709, shortly after the VOC had returned to Siam after a one-year absence caused by disagreements between the VOC and the kings. Finally, the success of this new policy is judged.

Ayutthaya under the Ban Phlu Luang dynasty

Narai's death ended the Prasat Thong dynasty, which had been established by his eponymous father. Narai had wrestled the throne from his uncle, who in turn had usurped the position of king from Prasat Thong's son shortly after his death. Prasat Thong himself had been a usurper. Phetracha and his descendants, the Ban Phlu Luang dynasty, would rule the kingdom until its demise in 1767. The throne was only successfully contested once, for a year, and then returned to the previous king, making it one of the most stable dynasties of Ayutthaya.

Because of the differences in their personalities, the successors of Narai have received much less academic attention. Narai showed a strong interest in the wider world, and also a desire of having his power recognised by other great kings. The influx of foreigners and the embassies he exchanged with foreign powers not only attracted much interest into Siam by contemporaries and by historians, but it also produced a large amount of foreign source material. Phetracha on the other hand was less interested in the rest of the world and its view of Siam, and had for a long time even been considered a xenophobe, an idea which historians however no longer support.[243]

But Phetracha neither sent nor received any of the grand embassies which Narai exchanged with France and Persia, nor did he assemble such a great variety of foreigners at his court, especially not as many Europeans. The French, whose archives and many published reports about Siam under Narai are among the most used sources for Ayutthayan history, were

[243] The recent literature on both kings, have all abandoned this idea for more nuanced views of Phetracha's relation with the outside world. These works are: Dhiravat na Pombejra, 'Ayutthaya at the End of the Seventeenth Century: Was There a Shift to Isolation?', in *Southeast Asia in the Early Modern Era: Trade, Power, and Belief*, by Anthony Reid (Ithaca: Cornell University Press, 1993), 250–72; Raben, 'Phetracha En de Wereld'; Bhawan, *VOC at Ayutthaya*.

almost wholly absent for Phetracha's rule, except for the few missionaries that remained. The VOC archives present by far the richest European source on eighteenth-century Ayutthaya, but so far they have also mostly been studied only until shortly after Phetracha's rise to power. Not only historians, but also the VOC have shown less interest in this period, as Siam became one of the less important outposts of the company, constantly under threat of being closed by the Company government.

The view of Phetracha as a xenophobe stems from the heavy usage of French sources. Dhiravat, Raben, and Bhawan, all using Dutch sources, have corrected this picture by showing that Phetracha's aversion mainly lied with Europeans, especially the French.[244] Alongside the Dutch, many other foreigners such as Indians, Persians, and especially Chinese remained important in the country. The Chinese even greatly increased in number and importance, with their trade compensating for the loss of the French and English. Ayutthaya therefore did not become isolationist, but simply reoriented itself, away from the Christian and Islamic West to the Chinese East.[245] Literature on Phetracha is mostly focused on the events of 1688 and its fallout and does not have the breadth of the study of Narai's rule. The idea of Phetracha as a tyrant is one harder to dispel, as it was almost a necessity for his rule to be successful. It took Phetracha much effort to achieve the abovementioned stability of his dynasty.

After forcing out the French, he had to contend with many domestic enemies. Both Korat in Eastern Siam, and Ligor on the Malay peninsula saw rebellion shortly after Phetracha took the throne, when their governors refused to come to Ayutthaya to show their allegiance to the new king. Korat, fortified by French engineers under Narai, withstood siege for three years before it was retaken by the royal troops.[246] The army used cannon in besieging the fortress, but the very long siege hints at the fact that while the French provided the Siamese with a fine fortress, they did not transfer the knowledge on how such a fortress should be besieged.[247] When Korat fell, its governor and some of his followers fled to Ligor to join the uprising there, which lasted three more years.[248]

Closer at home, a formerly imprisoned monk claimed to be the killed Prince Aphaithot and led a public uprising to take his rightful place on the throne in 1689. He gathered a large number of commoners, claimed to be more than 10,000, and attacked the capital itself. The

[244] See above note.
[245] Dhiravat na Pombejra, 'Princes, Pretenders, and the Chinese Phraklang: An Analysis of the Dutch Evidence Concerning Siamese Court Politics, 1699-1734', in *On the Eighteenth Century as a Category of Asian History: Van Leur in Retrospect*, by Leonard Blussé and Femme Gaastra (Aldershot: Ashgate, 1998), 115–20.
[246] Baker and Phongpaichit, *A History of Ayutthaya*, 243.
[247] The French fortress in Bangkok had not been finished when it was laid siege to.
[248] Baker and Phongpaichit, *A History of Ayutthaya*, 224–25.

fight for the capital is said to have lasted for three days before the pretender was either killed in battle, or fled and was later captured.[249] In 1699 another pretender rose in Korat and marched on Ayutthaya, also with popular support. His army was defeated in the field and the rebellion brutally suppressed afterwards. This rebellion also led to a purge at court, as it was thought that Narai's daughter Yothathep, whom Phethracha had married to shore up his legitimacy, was involved in it. In 1691, Pattani, Kedah, and Phatthalung, all on the Malay peninsula, refused to pay tribute necessitating further military action.[250] The overlordship Ayutthaya claimed over them had always been shaky and this was the perfect opportunity for them to break away. Even in 1709 a Siamese fleet sailed to Pattani to fight a "rebellion against the Siamese king".[251] Phetracha's reign was therefore marked by long and frequent internal wars, but did not allow any of the offensive warfare which Narai had waged against Burma in the 1660s, and which meant that he had to focus much more on domestic than foreign policy. He enlisted foreign groups in Ayutthaya such as Chinese, Moors, and the Portuguese mestizos to fight the uprisings, but failed at recruiting the Dutch.[252]

Phetracha renewed the treaties Narai had made with the VOC even before news of Narai's fall reached Batavia. With its monopolies confirmed and the other Europeans driven from the country, a sunny future seemed to lie ahead for the Company in Siam. But problems would soon arise. Phetracha intensified the trade policies of Narai, such as the extension of the royal monopolies which had begun under Narai. Likewise, an attempt was made to strengthen the royal junk trade even further, with Phetracha and Süa being the only Siamese allowed to send out junks.[253] The trade through gifting became dominated by more "practical" goods such as Indian textiles, with an almost complete absence of the rarities which Narai had fancied. To start with, Phetracha gave the director a list of textiles he required, both to carry out the funeral rites for Narai and also as gifts for powerful people. The new king had to buy loyalty, and incurred high costs for it. His first gift to the company was therefore lavish, consisting of large amounts of sappanwood, oil, tin, rice, and copper in order to pay for all he wanted.[254] He also flaunted his wealth to the company by gifting them gold and jewels worth more than f. 20,000.

[249] The first is claimed by the Royal Chronicle of Ayutthaya which has him killed by a cannon, while the company reported his flight.
[250] Baker and Phongpaichit, *A History of Ayutthaya*, 226.
[251] VOC 1776, 1.
[252] Bhawan, *VOC at Ayutthaya*, 173.
[253] Raben, 'Phetracha En de Wereld', 264.
[254] Niemeijer, *The Diplomatic Correspondence between Asian Rulers and Batavia Castle,* HK. 23.

The VOC was unable to deliver all that was asked of it, citing war in Coromandel as the reason, but a part of the required textiles were delivered from the warehouses in Batavia.[255]

The effects of that war were also felt in Siam. Together with conflicts in Malaya and Bengal, it was one of the reasons for the decline of commerce under Phetracha and Süa.[256] Dhiravat had maintained that the VOC was wrong in talking about stagnant trade, and that there was only a reorientation of trade towards East Asia.[257] But Raben has shown that even in the trade with China and Japan fewer ships, both private and royal, participated than in the 1670s, a development that actually already started in the last years of Narai.[258] This was especially visible in the trade with South Asia, which collapsed. The steadily worsening condition of foreign merchants confronted by ever stronger royal monopolies, yet at the same time the apparent inability of the royal house to carry out its own trade with South Asia, meant a halving of shipping in Ayutthaya at the end of the century compared to twenty years earlier. While Siam did not intentionally isolate from the rest of the world, domestic policy and foreign crises had nonetheless led to a real collapse in foreign trade.[259]

As their own royal trade was faltering, Phetracha and Süa also began to enlist the service of the Company to buy goods for them abroad. For this, Siamese products were sent to Batavia, to be sold there or elsewhere depending on where they would bring the most profit. The resulting money was then supposed to be spent by servants of the king that accompanied the goods, and would sail on company ships to Coromandel or Surat.[260] This lowered the cost of royal trading. Early on Phetracha also requested Dutch officers for his own ships. Director Tant, who thought that the king was not really interested in fitting out his own ships, suggested that he use the services of a free Dutchman living in Ayutthaya instead. He also reported that the king wished that this officer would sail under the flag of the company, he thought because Phetracha was afraid of English attacks.[261] Phetracha only made a single request for Dutch military experts in 1695, for constables skilled in the use of mortars.[262]

Guns were not among the presents requested by the court early on. But in 1693 the Governor-general sent six gilded muskets and 3 pairs of fine pistols to the king. The director

[255] Ibid.
[256] Raben, 'Phetracha En de Wereld', 263–65.
[257] Dhiravat na Pombejra, 'Ayutthaya at the End of the Seventeenth Century: Was There a Shift to Isolation?', 266.
[258] Raben, 'Phetracha En de Wereld', 264–66.
[259] Ibid., 263–67. If 1679-80, the best year for trade under Narai is taken as the bar, then trade had even fallen to a quarter twenty years later.
[260] VOC 1691, 25.
[261] VOC 1498, fo. 122
[262] VOC 1557, fo. 175r. He did however try to get know-how from India, to start the production of Coromandel textiles in Siam, a project which however failed. VOC 1536, fo. 89v-90v.

informed the Governor-general that the guns were received very warmly. He sent along a comparison of the value given to each gifted good by the Siamese, compared to the cost that good had incurred for the company for the years 1692 and 1693.[263] This comparison revealed that the Siamese had massively undervalued the Dutch presents of 1692 at only 70% of their value. They did much better in 1693, when according to the Phraklang the Dutch presents were worth 150 catty and 2 tael of silver. Generously, the king would add another 50 catty of silver to his return present to the company. According to the company accounts the actual value of the present had been 173 catty and 13 tael. Half of the king's generosity therefore merely compensated for the low valuation of the Dutch goods. The guns however, had been valued 23% higher by the Siamese than by the Dutch. Giving guns in this trade should therefore have been more profitable than most other goods.

Seeing this favourable pricing, the next gift by the company also included a few guns, this time to both the king and the Phraklang. In 1694 the director sent a list of goods suitable to be presents for the Siamese, which was unfortunately not sent on to the Netherlands and therefore not conserved in the archive.[264] But the director mentioned that guns were especially wanted, and the same type of list survives from the next year. It is very likely that it is essentially identical to the one of 1694. In the list of 1695 the king requested fine muskets, with white not blue barrels. The ones that had previously sent had been pleasing. But a request was made to get more muskets instead of any carbines or pistols.[265] This was only partly followed by the company. The present of 1696 only consisted of fine muskets. However, only 14 guns were sent, slightly more than a tenth of the previous shipment.[266] But afterwards the transfer of guns picked up, with hundreds sent yearly, as can be seen from Table 2.

Guns for the King

Phetracha must obviously have come to appreciate the guns that had been gifted to him in the previous years. In 1699 an uprising broke out, led once again by a man claiming to be Narai's brother, likely with the goal to ensure that Prince Phwan, Phetracha's son with Narai's daughter Yothathep, would follow Phetracha on the throne instead of his much older son, and at this point co-regent Sorasak (later King Süa). The uprising was defeated by the royal troops. A big

[263] VOC 1536, fo. 114-118, *Siamse taxatie van de Schenkagie Goederen anno 1692 en 1693.*
[264] VOC 1569, 15-18
[265] VOC 1580, 50.
[266] VOC 927, 376 and 386. It is unclear how much this shipment was influenced by the list, as the list only arrived in Batavia in February 1697.

purge at the court followed, as result of which many officials were executed and the old Phraklang Kosa Pan, who had been Narai's ambassador to France, lost his position.[267] A slew of younger, less experienced officials entered office, including the new Phraklang, who was Chinese. Director Reynier Boom was called for an audience with the new Phraklang, in which he was told of the king's desire for large amounts of muskets.[268]

Table 2. Guns Gifted to Siam by the VOC.

Year	Ordinary Guns	Luxury Guns	Total Guns
1693	0	12	12
1694	0	12	12
1695	0	126	126
1696	0	14	14
1697	298	0	298
1698	*400	0	400
1699	200	21	221
1700	310	37	347
1701	312	20	332
1702	226	16	242
1703	36	12	48
1704	118	52	170
1705	46	38	84
1706	106	42	148
1707	†258	55	313
1708	200	9	209
1709	215	30	245
Total	**2725**	**496**	**3221**

Source: Appendix 2.
*All 200 of the pistols of this shipment were returned to the company
†208 of these guns were returned to the company

The Phraklang informed Boom of what would be asked from the company in the letters about to be sent to Batavia. The amounts ordered here are colossal, and Boom expressed his surpise. The king wanted no less than 5,000 ordinary muskets. In addition, as many gilded muskets, carbines, pistols, blunderbusses, gun locks, and flints as possible. The Phraklang wanted to know from Boom whether these guns could already be shipped to Siam with the company ships that would go to Japan in May and whether the blunderbusses and gun locks could be made in Batavia. Boom had to answer negatively to both questions. Everything had to be ordered from the Netherlands.[269] The apparent haste of the Phraklang in getting these guns

[267] Dhiravat na Pombejra, 'Chinese Phraklang', 109–11.
[268] VOC 1623, 63-64
[269] VOC 1623, 64-65

should not be surprising. After all, he had gotten his position only on account of the failed rebellion of the previous year. With the many challenges that were made to Phetracha's reign, increasing the firepower of the royal troops must have been one of the most rational decisions, especially as there was nothing that Phetracha could do about his status as usurper, short of abdicating the throne in favour of his youngest son, who was still a child, something which his much more powerful and older son would certainly take issue with.

Firearms would be especially advantageous when considering the theories recently advanced by Chris Baker and Pasuk Phongpaichit, as well as by Alan Strathern.[270] They argue that while Phetracha's usurpation of 1688 was not a revolution in the sense of overthrowing the old social order, the way in which the coup was carried out was somewhat revolutionary. Instead of relying only on the nobility and the clients which it could mobilise as was usual during the many palace coups in Ayutthaya, Phetracha utilised the enormous social standing of the Sangha, the Buddhist monkhood, to mobilise a much larger number of commoners than he could reach through the networks of the nobles that supported him.

By feigning that he was only interested in protecting Buddhism against Catholic missionaries and would return to a temple after that threat was eliminated, Phetracha had gained the support of the Sangha and the masses. But already during the coup against Narai and Phaulkon, Phetracha killed Narai's brothers that should have succeeded him, to make himself king. This greatly hurt his legitimacy with his supporters, a fact mooted because he had by then got the military on his side. But it came back to bite him later, as most of the popular revolts against his rule were led by monks or by alleged relatives of Narai (or both).[271] While these revolts undoubtedly also had noble supporters, they amassed large groups of commoners, at one point marching on Ayutthaya with around 10,000 men. The popular mobilisation through the monks that had brought him to power, was now used several times in attempts to depose Phetracha. The king mobilised the foreign groups living in Ayutthaya such as the Chinese, "Moors", and Portuguese. While this was quite normal, an attempt was also made to get the population of the Dutch settlement in Ayutthaya to fight under the command of the VOC officers, and to employ the six cannon of the company. The director was able to get out of this obligation, by not only emphasising that the Dutch were in Siam as merchants and not as

[270] Baker and Phongpaichit, *A History of Ayutthaya*, 227; Alan Strathern, 'Thailand's First Revolution? The Role of Religious Mobilization and "the People" in the Ayutthaya Rebellion of 1688', *Modern Asian Studies* 56, no. 4 (2022): 1295–1328.
[271] Strathern, 'Religious Mobilization', 1316–18.

soldiers, but also by pleading that he was not allowed to provide any men or arms without order from Batavia.[272]

Firearms were important in inter-state warfare, including that against rebellious vassals which falls into a grey zone between domestic and foreign conflicts, depending on which side one views it from.[273] But they must have been an even greater boon in this type of domestic struggle. The 10,000 who marched on Ayutthaya in 1689 were described by Engelbert Kaempfer as an "undisciplined rabble" who brought their own weapons.[274] Firearms were a royal monopoly precisely to prevent their use against the king. Their own arms which the masses could therefore contribute would not include firearms, at least if the royal monopoly was successfully enforced. Against such an enemy, the royal firearms must have had a devastating effect, especially if they were fired into this unorganised mass in volleys. It took months of drill to make European soldiers stand their ground under concentrated enemy fire. How great must then have been the effect of dozens of their own being struck down in mere seconds on untrained farmers? This effect of course hinges on the amount of guns which the king could amass on the battlefield, and on how accustomed those fired at were to the use of such weapons. Michael Charney has recently argued that through continual inter-village warfare, the peasants that were pressed into military service by rulers on the Southeast Asian mainland were actually quite experienced fighters.[275] But whether this assertion, derived mainly from Burmese evidence applies to the comparatively much more peaceful heartland of late-seventeenth-century Ayutthaya is doubtful.[276] The ability of the king to bring guns against the rebels can however be scrutinised by looking at his requests and the material that was actually delivered.

The Phraklang was kind enough to provide further information on what exactly was required to the director, who then reported this to the governor-general. Through this, we get a surprisingly complete image of what the Siamese wanted. The document is titled "List of goods that are thought to be proper for the king, as well as for the new Phraklang and for the viceroy of Ligor" and is not the first such list compiled by directors, although most are unfortunately no longer existent.[277] That the guns were listed here, shows their classification as presents and

[272] VOC 1623, 67.
[273] Reid, *Age of Commerce II*, 224.
[274] Engelbert Kaempfer, *A Description of the Kingdom of Siam, 1690* (Bangkok: Orchid Press, 1998), 37.
[275] Lecture "Between the Court and the Village: Uncovering how was Early Modern Warfare Really Waged in Southeast Asia" by Michael Charney, given at Leiden University on 29 March 2023.
[276] The severe lack of sources that actually describe combat in this period of Siamese history make this a daunting task for historians to solve.
[277] VOC 1637, 15-20.

not ordinary trade goods. The Phraklang had signalled the king's willingness to buy the guns from the company, but also said that if only a part of the order could be fulfilled it could also be given as part of the presents for the king.[278] All the guns sent previously or after this report were however part of the royal gifts, they were never taken to Siam among the normal trade goods. While guns are described the most extensively in the report, the usual presents consisting of rarities, textiles, spices, sandal wood, and rose water are also listed. It should not be forgotten that while guns are one way of taking care of opposition, the gifting of foreign textiles was also an important way in which the king bound the nobility to himself.

The wording of the list makes it clear that the king was not seeking luxurious weapons for his own use and prestige, but weapons for military use. The 5,000 common muskets are at the centre of the request, while everything is an extra that would be appreciated on top. They were to be like the soldier muskets which the Phraklang had requested in 1695.[279]

While the king had previously asked to receive more muskets instead of any carbines, up to 100 carbines were now wanted. However, without shoulder slings as, unlike in Europe, in Siam these short guns did not see much use on horseback. Instead they were used by elephant riders and on boats, sometimes also simply on foot. Pistols, another cavalry weapon, were absolutely not wanted in Siam and none should be sent.[280] Blunderbusses with copper barrels were also wanted. Blunderbusses can be likened to primitive shotguns, and were often used by cavalry, but also for personal defence. As they fired several projectiles at once, if only at a short range and with low accuracy, they would have been ideal to deal with the crowds that formed the majority of the rebels which threatened the monarchy. The director suggested that some of these could be made in Batavia, which suggests that the company had at least limited production capacity there.[281] The king wanted up to 400 of these guns.

Most interesting is the last item listed under the weaponry: large snaphaunce locks. These were to be combined with small cannon, and would be placed on the back of elephants. Small cannon were popular throughout South-East Asia, especially for use on boats and ships.[282] Unlike muskets, cannon were normally not fitted with locks and had to be fired by holding a burning match to the touchhole to ignite the gunpowder. The use of a lock would make it easier to fire the gun on a moving elephant or boat. It would essentially create a massive

[278] VOC 1623, 66.
[279] Idem; VOC 1637, 16
[280] VOC 1637, 16
[281] Gunmakers were sent from Europe to Batavia, but it is unclear whether they were only tasked with maintenance or with the manufacturing of new material. If they produced, their importance cannot have been large compared to the imports from Europe.
[282] Reid, *Age of Commerce II*, 230–32.

musket, too heavy to be carried by a person. The combination of cannon with locks instead of touchholes was not common in Europe until it came into use on British warships in the middle of the eighteenth century, but it seems that this was not wholly new to Siam, as the Siamese sent along a sample of what this large lock should look like.[283] This is an example of Southeast Asian adaptation of European technology. 300 such locks were ordered by the king, but they are exceptional compared to all the other equipment listed in that in the next ten years not a single such lock was delivered, leading to frequent reminders by the Siamese side.[284] In 1718 the Phraklang more successfully asked for 50 small cannon to be used on elephant back, as in August 1719 the Governor-general made the king a present of 98 small cannon.[285]

Unlike Narai, Phetracha was only interested in importing technology that was ready to use, not any expertise. The attraction of experts by Narai does not seem to have been very successful, and as Phetracha's rule was constantly under threat it is understandable that he preferred a small advantage now over a possible bigger advantage later on. Additionally, the reliance on imports, wholly through the framework of diplomatic gifts, made gun control much easier than if guns were produced domestically. As only the king had access to this channel for acquiring guns, it prevented the arming of his enemies, except through smuggling. This goes especially so for the inland part of Siam, such as Korat, but less so for the Malay "subjects" of the king. Besides the centre's already weak and often imaginary control over them, these port polities also had their own access to maritime trade. They would therefore have had a much easier time at buying foreign firearms than inland vassals or subjects, which could partially explain both the frequency and also the strength of their resistance to the king. This policy of limited arms transfers was therefore not only easier, and as Table 2 shows, more fruitful, than Narai's, it was also well suited to the situation the court found itself in at the end of the century.

The Phraklang had been warned by the director that such a massive order could not be fulfilled quickly, but what came must still have underwhelmed the Siamese. In 1701 the Governor-general gifted the king just 310 common guns, as well as 18 luxury pieces, along with 1,000 flints. The Phraklang received a paltry 4 guns.[286] Most of the value of the present consisted of textiles. Batavia justified this low amount of guns neither in the internal letter to

[283] La Loubere also described the use of one-pounder cannon from the back of elephants. de La Loubere, *Historical Relation of Siam*, 92.
[284] VOC 1637, 17
[285] Hendrik Niemeijer, ed., *The Diplomatic Correspondence between The Kingdom of Siam and The Castle of Batavia during the 17th and 18th Centuries* (Jakarta, the Netherlands: ANRI, TCF, 2018), sec. HK24. It is not known whether these cannon were fitted with locks by the Dutch, or whether the Siamese may have done that afterwards.
[286] VOC 936, 243-244

Director Gideon Tant, nor to the king or Phraklang. The Governor-general's letter to Amsterdam however expressed concern about the "miserable condition of the realm" which had reported and which was blamed on the wrathfulness of the king.[287] The overthrow of the king was however seen as an even worse outcome by Batavia, as his replacement might not pay the king's sizable debt. It should therefore have been in the company's interest to supply Phetracha with the weapons necessary to uphold his rule. Batavia reported to the fatherland about the condition in Siam, the debt and difficulty of trading, as well as that the king had sent them samples of hats he wanted to have made in the Netherlands.[288]

The Generale Missive also mentioned the request for guns, and referred the Heren XVII to the copies of the Siamese letters for more details. Because of the unsure times, Batavia had decided to gift only what was absolutely necessary to maintain the king's favour. These guns were sent from the Batavia armoury, for which replacements were requested from the fatherland. Samples for hats and textiles the king requested were sent to the Netherlands, but not for guns or the large locks as demanded by the Siamese. The Heren XVII were also informed about how much the guns and textiles of the previous year had pleased the king, with his return gift being worth almost 50% more than the company's gift.[289] The small consignment of guns therefore seems to have been motivated by Dutch fears that the king might be overthrown soon and that it would then not be repaid. It probably appeared too risky for them to order several thousand guns, which might only arrive two years later and whose utility then was not guaranteed. The considerable debt which the king had with the company, almost 500 catty of silver (f. 76,000) at the end of 1699 and still growing, probably did not help either.[290] The XVII were also briefed on the latest revolt and the concern which it had caused in the capital, with the rebel leader rumoured to either be a surviving brother of Narai or Prince Sorasak, while other sources said that Sorasak had been poisoned.[291]

Another issue, which was however not brought up at this time, was the fact that with the War of the Grand Alliance (1688-1697) and the War of the Spanish Succession (1701-1715) the Dutch Republic was involved in massive great power wars for almost the whole reign of

[287] VOC 936 234. "ellendige toestant van 't Siamse rijk". Unsurprisingly, the problem with the king's behaviour lied not with his suppression of the rebellion, but with the purge at court, which according to Tant did not even spare children.

[288] W. Ph. Coolhaas, J. van Goor, and J. E. Schooneveld-Oosterling, eds., *Generale Missiven van Gouverneurs-Generaal En Raden Aan Heren XVII Der Verenigde Oost-Indische Compagnie*, vol. 6 (The Hague: Martinus Nijhoff, 1960), 151, http://resources.huygens.knaw.nl/vocgeneralemissiven.

[289] VOC 1614, fo. 964r-965r. The Dutch gift of f. 20,228:1:8 was answered by the Siamese with a gift of f. 29,314:1.

[290] VOC 1614, fo. 969

[291] VOC 1614, fo. 969r-970v

Phetracha and Süa, which must have taken a toll on its ability to send weapons to the East Indies, especially if they were not even intended for use by Dutch troops.[292] Nonetheless guns were now always included in the presents and soldier guns strongly outnumbered luxury pieces. The debt of the king, as well as the worsening trade conditions for the company however remained a topic about which the company constantly complained.

Süa

King Süa has received even less attention by historians than his father. If he is thematised, then as an extension of his father, as his co-conspirator and successor. This tradition will not be broken with here, as the reign does indeed appear to be one of continuity with Phetracha's. As Phetracha had defended his throne against so many defenders Süa was not troubled with the same uprisings that had dominated the reign of his father. After he secured his position, little happened in the way of conflict, foreign or domestic.[293] It was however a very turbulent reign for the VOC, which in 1705 left the country, but returned next year already.

When Phetracha died in 1703, Süa took the throne. Initially he declared his intention to act as a regent for his young brother Prince Phwan and to teach him the business of kingship, until he would be old and experienced enough to take over the sceptre himself.[294] That Süa would ever transfer power to his brother was very doubtful from the start, and the failed assassination attempt against his life by Phwan's supporters provided the perfect pretext to keep the throne. Yothathep had to flee into a nunnery, and Phwan was beaten to death with his body being publicly displayed for days after, probably to prevent the emergence of more alleged relatives of Narai which had so plagued Phetracha.

That an attempt had been made to use what must have been Dutch guns to take Süa's life certainly did not deter him from ordering more. After all, the system of the royal armoury had clearly worked in preventing the use of guns against the king. Instead of changing his father's policy, Süa seemed to want to intensify it. After renewing the treaty with the company, the first letter of the Phraklang to the Governor-general complained about the slow delivery of guns. 5,000 pieces had been ordered, but in the last 4 years only 910 short guns, 850 long guns and 60 pistols had been delivered.[295] At least another 4,090 guns were therefore demanded, as well as the ordered gun locks that had never been delivered.[296]

[292] This was however mentioned by Batavia to the director in 1705. VOC 943, 206.
[293] But note the expedition to Johor at the end of his life, which is thematised below.
[294] For a description of this succession, see the section "Gun Control in Siam" in the previous chapter.
[295] This number gives a total of 1820 guns for the king, while the lists of presents from the Governor-general to the king for this time frame add up to 1815 guns.
[296] VOC 1691, 104-105.

The company continued to gift guns to Süa, but his exhortations to finally fulfil the old orders did not motivate the company to increase the size of its gifts. This is unsurprising, as the relations between court and company had been deteriorating since early in Phetracha's reign. From the company's perspective its position in Siam was about as bad as it could be. The king constantly had large debts with the company, often took his time to hand over the diplomatic letters meaning the ships had to stay in Siam for long and might miss the monsoon, the tin monopoly of the company was undermined by large royal purchases, while the Indian textiles imported could no longer be sold to anyone but the royal factors, whose prices left the company too little profit.[297]

The underlying problem here was of course that both the company and the king were used to operating as monopolists and their interests therefore had to clash, especially as the monopolies given to the company were not absolute but had loopholes for the king built in.[298]

This tension was encapsulated in Batavia's demands, insisting both on the exclusion of all other traders from the purchase of skins and tin while demanding the freedom of trade which had been granted to the company otherwise. A commissioner from Batavia, was sent to negotiate with the king to restore the old position of the company. As he was not given an audience with Süa he considered his mission failed, and oversaw the closing of the company's operations in Siam.[299] The king's debt, was finally settled, through the delivery of 21,223 pikol sappanwood, some of it owed for more than a year, 41 catty silver, and 51 bahar tin giving a total value of more than f. 60,000 using the customary prices.[300] Because of the bulkiness of the more than 2,500,000 lbs of sappanwood much of it had to remain in the country, in the custody of a few company servants, mostly those with Siamese families that were not allowed to leave.[301] This shows the problems created by the king's lack of silver and his insistence to pay the VOC in Siamese goods instead, payment which was often only made months later.

Negotiations to re-establish the factory in Siam began almost immediately. The need to take away the remaining goods gave a convenient pretext to send ships, servants, and letters to Siam. The company had always emphasised that it did not want to break with Siam, and that

[297] These issues were mentioned in a letter to the director, VOC 943, 197-207.
[298] In addition to buying up most of the tin in Ligor to resell it to the Company, there are reports claiming that whenever the VOC showed interest in buying goods that were not part of the royal monopolies, they were forcibly bought by the royal factors and then resold to the VOC for higher prices. VOC 1711, 12.
[299] The commissioner and the director did not properly follow the orders of the Governor-general here, as they were supposed to stay behind in Siam to continue negotiations after most of the company had left the country.
[300] VOC 1728, 85-91.
[301] VOC 945, 277-279. Siamese, and their children, could only leave the country with the permission of the king, meaning that Batavia had to negotiate with the court to allow the wives and children of servants to leave with them.

even if it had to leave the country it would do its utmost to keep up the mutual friendship that connected it to the king.[302] Besides this friendship that was always conjured in the letters between the king and the Governor-general, Batavia also counted on the wish of the Siamese nobility to continue trading with the company. Considering the ill state of foreign trade in the country, Siam could hardly afford to lose the VOC which was responsible for most of the trade besides that to China and Japan. According to the Siamese version of the story, they only broke the treaty to punish Dutch breaches of the treaty, namely smuggling carried out by the directors against the wishes and knowledge of the Governor-general.[303] In the end all that was necessary for the company to be allowed to return was an apology for the harsh letter the Governor-general had sent to the king, and to admit that previous directors had lied to Batavia about the situation in Siam.[304] By putting all the blame on Director Aarnout Cleur's predecessors the Phraklang found an easy way out, as this meant that those to blame for the dispute between court and Company were either dead or had returned to the Netherlands, so that they could not be punished.

In its effort to re-establish its position in Siam the company had sent a consignment of guns in its presents for Süa and the Phraklang in 1706, which was meant to re-enforce the old friendship which had tied together the company and the Siamese court for decades.[305] In 1707 Batavia sent another such present, which this time even mostly consisted of guns, showing that the Governor-general must have thought the gifting of guns an especially convincing argument for why Süa would allow the company to return with its old privileges. The director of Ligor had also included guns in the list of presents which should be sent to restore trade.[306]

When considering the importance of guns for the court, it is very interesting to see that weapons were sent back to the company twice. Half of 1698's shipment, 200 pistols, were sent back while the same number of muskets and carbines were kept. This was the last time that non-luxury pistols were sent to Siam.[307] Of the large shipment of 1707, 208 muskets were sent back to the company next year. It was explained that these guns were not of the type that was usual in Siam, and therefore not wanted. The next year, 200 others were sent as replacements which were found to be more suitable by the Siamese. Unfortunately it is not possible to know

[302] VOC 943, 797-981.
[303] The Siamese perspective is explained in a very long letter by the Phraklang, in VOC 1743, 119-165
[304] VOC 1759, 23-26.
[305] VOC 947, 250; 252.
[306] VOC 1728, 105. The staple presents of Indian cloth and rosewater were of course also included.
[307] That pistols were not wanted had already been made clear to the director several times.

what exactly the problems with the guns were, as this was not specified. [308] It is not clear whether this was a quality issue, perhaps the guns were too large.[309] In jungle warfare shorter guns were usually preferred, so this might be a possible explanation. Be that as it may, these were the only times that guns were sent back. It is very unlikely that any guns would have been sent back in the time around 1700, when the large request for guns was made and when the kingdom was in upheaval. Süa must have felt secure enough in his position that he could afford to give up these guns.

This is especially astounding seeing that at the end of 1708 the king fitted out a fleet to wage war against Pattani and the sultanate of Johor, at the tip of the Malayan peninsula. The pretext for this war was that Johor had prevented Pattani, a Siamese vassal, from sending the flowers made of gold and silver that were the sign of its vassalhood to Ayutthaya, although it is quite possible that the sultan of Pattani did this of his own volition.[310] That same fleet was observed by the head of the company lodge in Ligor, when it passed through there on 15 February 1709. The fleet was estimated to consist of 7,000 soldiers, on 2 small ships and 150 galleys, equipped with a total of 750 light cannon.[311] Unfortunately we are not told anything about the small arms of the soldiers, although the king must have provided some of them to his most loyal troops. The fleet returned somewhen in 1709, as Director Cleur reported about its return in his letter of 7 January 1710. According to him, the war with Pattani had been resolved without bloodshed, although it is likely that the army returned because it heard of Süa's death and not because it had reached its goals.[312] Cleur contrasted this with war between European princes, which looked very different as he could see from the European news that Batavia sometimes shared with him.[313]

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[308] The Phraklang stated that the type of guns needed in Siam have to be "of good medium, and ordinary sort" of which a great quantity was wanted, VOC 1759, 35. When the replacement guns were received in 1709, the Phraklang stated that the returned guns were not in use in Siam, VOC 1776, 33.

[309] VOC 1667, 33. The Phraklang compares the returned guns to muskets which he says are also not in use in Siam, but likes the new guns(snaphanen) sent. The terms snaphaan and musket are however not used consistently. The Phraklang called the returned guns snaphanen in 1708, but muskets in 1709. As these letters are translations, the choice of words may have been that of the translator.

[310] VOC 1776, 318. Johor, which asked the Company outpost in Malacca for gunpowder to fend off the Siamese. This was declined under many pretexts, one of which being the fact that the VOC never gives any kind of ammunition etc to its allies, all the while the Siamese undoubtedly brought some Dutch weapons with them. VOC 1776, 178-180.

[311] VOC 1776, 369. The cannon are described as "250 ligte stucken canon, 500 stux bassen"

[312] Leonard Andaya, *The Kingdom of Johor 1641-1728* (Kuala Lumpur: Oxford University Press, 1975), 213 claims that 'Patani managed to defeat the Siamese army after twelve days of hard fighting and forced the latter to withdraw.' The source he cites, which relays rumours that were heard in Melaka rather suggests that the Siamese army left because it heard of the death of Süa. As the director in Ayutthaya actually saw the fleet, undamaged according to him, while Melaka was relying on rumours, I have chosen to follow the view from Siam.

[313] VOC 1776, 10.

The fact that Süa had sent back guns before sending this fleet indicates that he either already had enough of them, or that he did not consider them necessary for this war. As Pattani was a port city, it was possible to bring a massive amount of firepower against it from the sea, which could not be replicated inland, certainly not without the use of many elephants for their transport which would be expensive. What seems to have decided the Pattani war in the favour of Ayutthaya was that it proved that it was able to mobilise a massive fleet with a large amount of cannon. That must have shown to Pattani that it was cheaper to submit to Siamese overlordship, which would be quite weak and could be challenged in the future, than to risk a fight, although it is also possible that the war ended because of Süa's death, and that Pattani remained in rebellion. The picture therefore emerges that imported small arms were especially important to fight domestic enemies in the form of peasant masses, while shipborne artillery was more important for inter-state warfare. As Narai was also much more occupied with interstate warfare than with the domestic conflicts that became so important under Phetracha this also explains his very limited interest in importing weapons from the VOC.

There is some more evidence to support this theory. According to VOC sources, when Phetracha's troops failed to reconquer Korat in 1700, the army was scattered, and lost all of its cannon and other weaponry.[314] Yet, when in 1702 an English ship visited Ayutthaya, they only bartered for some sugar, without being able to sell the iron cannon which they had brought with them.[315] So even after Phetracha lost a large number of cannon, he declined an opportunity to restock.

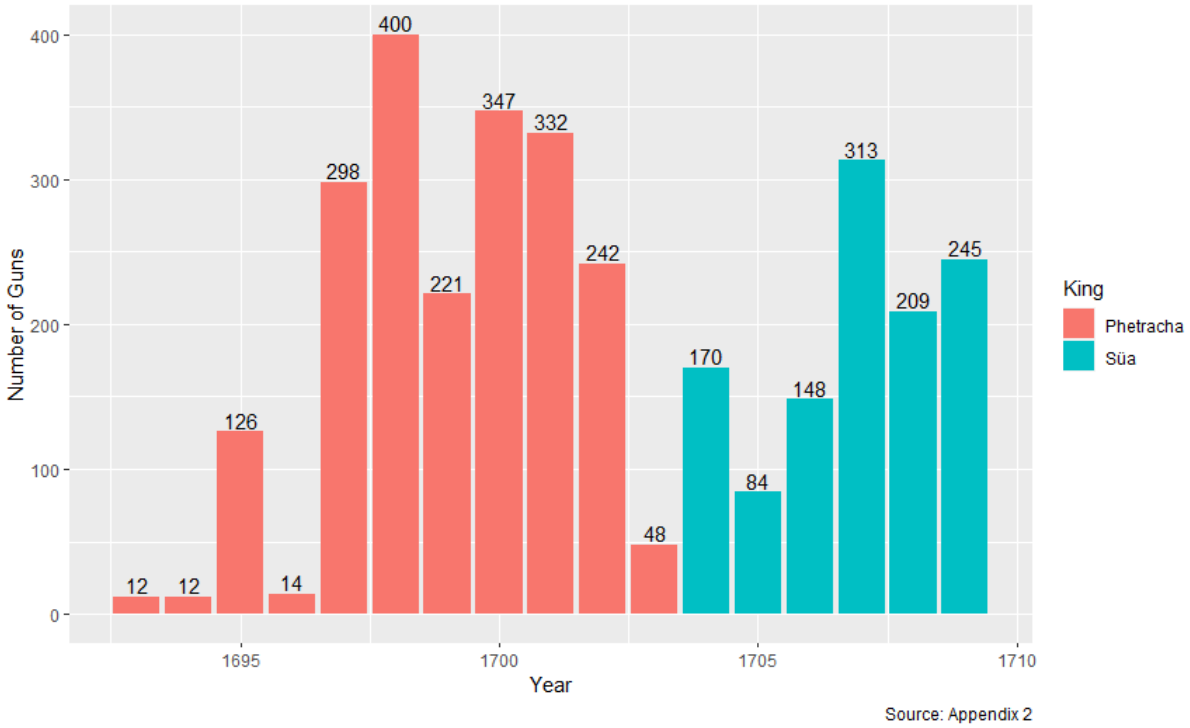
Assessing the Success of the Gun imports

To conclude this chapter on Siamese gun imports, it is necessary to judge how successful it was, and what obstacles it faced. This is made difficult by the fact that (reliable) information about these conflicts, and therefore of the use of the weapons, is lacking. The Royal Chronicles present a very distorted picture of warfare, and also gloss over some conflicts completely. Because fighting took place outside of the city of Ayutthaya, except for the rebellion of 1689 which actually reached the capital, Western descriptions of them are lacking as neither the Dutch merchants nor the French missionaries showed much interest in the fighting. It is much more feasible to judge the success of the arms transfer itself, than the effects it had on the ground.

[314] VOC 1637, 7.
[315] VOC 1648, 136. The ship was about to return to England via Siam.

We have already seen that under Phetracha and Süa a total of 3,221 guns were imported in a span of 16 years. How can we judge whether that was much or little? We do not know how many soldiers the king hoped to arm. We do know that according to the VOC Süa was able to mobilise 7,500 troops for his campaign against Johor in 1708, although it is not clear if all of them were soldiers or if this number included sailors. There are reports of Phetracha mobilising up to 40,000 soldiers in 1689.[316] Compared to these numbers, but even to the 5,000 guns that were initially ordered by Phetracha, 3,221 appears to be little.

Figure 2. Yearly Gun Imports by Year and King



Source: Appendix 2

From 1695 onwards an average of only 228 guns were imported per year, less than 5% of what had been ordered. While the Phraklang calculated how many additional guns were needed to fulfil the original order, it seems that Phetracha had hoped that more than 5,000 guns would be delivered at once. This was later lowered to a request for 1,500-2,000 guns per year which was also not fulfilled.[317] In this sense the importation of guns failed. Likewise, the flintlocks for the small cannon were never delivered.

However, a continuous trickle of guns did reach Siam. What could be done with this? A big question mark here remains the way these guns were maintained in Siam. Muskets were not as long-lasting as modern small arms; especially in humid climates they were liable to rust. Joseph Miller claims that in West Central Africa, which shares a Tropical savanna climate with

[316] Baker and Phongpaichit, *A History of Ayutthaya*, 225.
[317] VOC 1648, 186.

Siam, guns had "an average useful life of about a year".[318] Maintenance was clearly an issue in Siam as well, as complaints were made about some parts breaking easily such as the springs, without any Siamese craftsmen being able to repair them. The Dutch gunmakers were therefore instructed to use steel instead of bad iron in the making of their locks. From this complaint at least it seems that the locks broke before the barrels had rusted.[319] If we believe the often very pessimistic view of the quality of guns sold in the Transatlantic slave trade, but also consider that as they were kept in the royal armoury the Siamese guns would have seen less action, we might assume that guns in Siam lasted twice as long. In that case, the king could seldom put more than 500 men under arms.

Few compared to the gun saturated battlefields of Europe, 500 gunners could still have a significant effect on the battlefield, especially if they were employed together and in formation. While how the guns were used on the battlefield is unknown, several hundred Siamese troops were trained by the Chevalier de Fourbin and then by an English drillmaster in the 1680s.[320] This drill probably had the goal of teaching the soldiers to fire musket salvos in the way contemporary European soldiers did. But as the soldiers only had to serve for six months it is unclear how much good this drill did them. La Loubere also mentioned a standing, paid, guard of the king which would have had more time to train on the guns.[321] Under Süa, the Phraklang said that guns were sent to all the small and large places in the kingdom, implying that they were split up and not concentrated.[322] Whatever their use looked like in practice, the continuous Siamese requests for guns are proof that the Siamese did consider them to be quite useful.

We have seen that the reason why the Governor-general did not order all the guns Phetracha demanded in 1699 was not fear of Siam becoming too powerful, but conversely that Phetracha's hold on the country was too weak and that his replacement might not honour the debt he would then have with the company.[323] As the king was already permanently indebted to the company, it becomes necessary to ask whether he could even afford all the guns he wanted. An unfortunate side effect of the gifting of the guns is that VOC documents usually do not contain prices for the individual gifts but only for the whole present, unlike the regular trade

[318] Miller, *Way of Death*, 91.
[319] VOC 1648, 186-187.
[320] de La Loubere, *Historical Relation of Siam*, 91.
[321] Ibid., 96–97.
[322] VOC 1648, 186.
[323] The very obvious excuse of the wars in Europe preventing sufficient gun exports to Asia was only used by the Governor-general in 1705; VOC 943, 206. But this explanation was sent to the director in Siam, not to the Siamese.

where prices were recorded. The comparison of the valuation of the presents of 1694 however contains both Dutch and Siamese prices for fine muskets.[324] And when 208 muskets were sent back in 1708 their price was also recorded as part of the cargo of the returning ship.[325] Additionally, the Phraklang also gave an idea of what he considered the prices of these guns in 1700.[326]

As pistols were not wanted by the Siamese they can be excluded from this calculation. The company made a profit of 2,19 tael per luxury musket. The common guns are however much more important, as it was them that the king wanted so many of. The price of 10 tical given per ordinary gun by the Phraklang translates to 2.5 tael.[327] The cost of the 5,000 guns would therefore come out to 12,500 tael or 625 catty. As a comparison, in 1699 the total sum of the trade between the VOC and the king came to 1,677 catty and 5 tael, while the year ended with the king owing 373 catty 9 tael.[328] The presents of 1706 and 1707 were only accepted in 1708 after the treaty had been renewed. They were valued by the Phraklang at 203 catty and 19 tael, while the total trade between court and company came out to just short of 659 catty, including the presents.[329] The price of the 5,000 guns alone would therefore have consumed most of the royal trade income in a good year. It must not be forgotten that the king's main imports were always Indian textiles. Like guns they were important for domestic stability, as they could be used as presents to buy the loyalty of the nobility and monkhood, but were also sold by the king to the Siamese. So even if royal exports were big enough to cover the cost of such a large number of guns, they would have to be bought at the expense of the Indian textiles, which would have significant repercussions for the king. The request for yearly shipments of 1,500 guns, at a cost of 187 catty 10 tael, seems more realistic, although even that would take up most of the Dutch presents.

If the guns were really valued at the prices given by the Phraklang in 1699, then the Company must have made a fortune on the ordinary guns.[330] The 10 ticals translate to a sum of f. 18, while the company registered the returned 208 muskets at f. 5:12 each.[331] This would

[324] VOC 1623, 117r-118v.The gilded muskets were valued at 10 tael by the Phraklang, and at 7,81 tael by the company. Two different types of luxurious pistols were valued at 5 to 6 tael per piece by the Phraklang and at 3,8 to 5,5 tael by the company.
[325] VOC 1759, 16. The price here is given as f. 5:12.
[326] VOC 1623, 66. The ordinary guns are valued at 10 ticals, the fine guns at 10 tael.
[327] According to the currency conversion list of VOC 4816, one catty equalled 20 tael or 80 tical.
[328] VOC 1623, 96-101.
[329] VOC 1776, 18-21. This account has an enormous balance sum of 2470 catty and 5 tale, most of which however is made up of currency exchanges and loaned money for purchases from private traders.
[330] The price of 10 tael given by the Phraklang for the fine guns lines up with what their value was assessed at in 1694, but no assessment of the value of common guns remains.
[331] Taking the value of the tael as 144 stuiver, as given by the entry 'Maas' in the VOC Glossarium.

mean that they turned a profit of 220% for the VOC before considering additional costs, which would make the profitability of guns similar to that of the monopoly products the VOC focused on such as clove and nutmeg. A large obstacle for the armament of Siam therefore came from the very high price of the guns, a price that had been set by the Siamese themselves. The reason for why the Phraklang gave such high price to the guns is unclear, it is possible that it was aimed at encouraging the VOC to send the guns but it might also reflect the market price of guns in Southeast Asia.

The importance Lieberman puts on maritime trade revenues to finance arms imports can therefore not be understated, as even ordinary guns required a significant outlay of money. An expense which post-Narai Siam seems to have been unable to pay, because of the severe deterioration of foreign trade. The promise of payment in silver would surely have encouraged the VOC to send more guns, but as there was a silver shortage the guns were instead paid with overpriced raw materials, that were often delivered late.[332] The inability to pay emerges as one of the main reasons for why arms imports never reached the desired level. The threat to the dynasty, and the uncertainty of whether a usurper would honour the previous king's debts, made this even more problematic. The decline in Siamese trade also made it unattractive for European competitors of the VOC, such as the English, French, or Danish. There are other possible reasons for the volume of gun deliveries. Chiefly, the difficulty of shipping so many guns to Siam, especially as the Netherlands were at war in Europe for almost the whole reign of Phetracha and Süa. There is however no evidence in the VOC archive that it was the result of a conscious VOC policy to deprive Siam of European weapons.

[332] That there was a silver shortage in Siam becomes clear from the many Siamese requests to the VOC to bring more silver to Siam(see e. g. VOC 1663, 72-73), something which finally happened in the years after the restoration of trade.

Conclusion

The advanced military industry of the Netherlands made the VOC an attractive provider of European firearms technology, and the kings of Ayutthaya knew how to profit from this through diplomacy. The practice of diplomatic gift giving allowed them to make requests for European weapons and for experts that was otherwise difficult to get a hand on. Contrary to the claims of some historians the VOC does not appear to have been especially restrictive when it came to transferring firearms technology to non-Europeans. Problems for the Siamese arose from other factors: the VOC's inability to attract enough expert labour even for its own needs, and the worsening economic situation in Siam which began in the mid-1680s. Even so, the Company provided material and personnel to the Siamese, even if often not to the complete satisfaction of the king.

Narai did not show much interest in buying weapons from the VOC. But whenever he did contact the Dutch – or the French and English – for this, he was always successfully supplied. In his other endeavour, building up the know-how in the use and manufacture of firearms in Siam, Narai was less successful. This was because his European partners were unable to supply the necessary expertise. In all cases, Narai was foremost interested in cannon. Not overly large cannon that were important for their spiritual power, but smaller, more manoeuvrable pieces. From this it can be deducted that cannon were especially useful in the wars against the neighbouring states which he fought. Under Narai's successors Phetracha and Süa it was domestic uprisings, not expansion plans, that occupied the king. Therefore they did not continue Narai's behaviour. Instead, they opted to focus their requests on the import of Dutch muskets. This import was significantly hampered by the decline in foreign trade which Siam saw, and by the worsening relationship between the king and the VOC which was in large measure also a result of the economic conditions. Nonetheless a steady stream of muskets did reach Siam.

Local factors were therefore more important in shaping this arms transfer than VOC policy. The Siamese set the framework for the arms import and decided what would be imported, based on their current needs. It would be unwise to generalise this experience for all of Southeast Asia. The status of the importing state, and its relationship to the exporter, must surely have been what defined the shape arms transfers took. This means that instead of the very sweeping way in which the arms trade has been treated so far, detailed studies are needed to tease out how it was shaped by local context.

The Siamese example shows very clearly how the state's approach to arms imports fluctuated depending on the circumstances. This means that the state was able to react to changes, but in the long term this fluctuation cannot have been beneficial to the development of the Siamese military, as military spending was cut heavily in peacetime. During much of Narai's reign he did not buy foreign weapons, nor request military experts. In light of Hoffman's and Andrade's recent ideas about the importance of sustained warfare for military innovation, this serves to explain why the possible impulses of the military revolution showed little effect. Neither a drilled standing army, nor centralisation to the European extent came about in Siam. Andrade's suggestion that "perhaps the military revolution model gets the causation backwards: centralized states were not brought about because of the adoption of the gun but rather helped make the adoption of the gun possible" should be kept in mind here.[333] What this means for the balance of power between Southeast Asian states, according to the model of Lieberman, is unclear. It is however likely that the coastal states still disproportionally profited from firearms. A study about the acquisition and use of firearms in one of the smaller inland states would be enlightening here, especially in light of the issue of the cost of military imports raised in this thesis.

Arms trading promises to be a fruitful topic for global historians. Very little work in the field exists so far and it remains heavily fragmented. But a global history approach, which studies the diffusion of firearms technologies throughout the world as a single phenomenon will aid our understanding of it tremendously. Tying it all together are the areas of production. At all points in history a small number of areas will have been responsible for most of the internationally traded arms. That means that weapons from the same workshop could end up in all corners of the world.

But all parts of the globe have a role to play in this. Foremost of all West Africa, which appears to have been the world's biggest importer of foreign firearms. Much has been written about how weapons trading interacted with slave trading in Africa. But the relations of weapons trading to other types of commerce, politics, and society has been explored to a much smaller extent in other areas. This also includes the areas under VOC control. Because of its enormous archive the Company will be one of the pillars on which to build this historiography. The arguments recently advanced by Verbeek about how the VOC both restricted and distributed arms among its subjects and allies forms a good starting point for this.

[333] Andrade, 'Military Revolution in Global History', 234.

Appendix 1: Experts Requested by and Sent to Narai

Year	Action	Expert	Number	Source	Page
1660	Sent	Constable	1	DRB Vol. 13	187
1665	Request	Constable	1	DRB Vol. 16	395
1665	Request	Email	1	DRB Vol. 16	395
1665	Request	Guncaster	1	DRB Vol. 16	395
1666	Request	Constable	1	DRB Vol. 17	200
1666	Request	Guncaster	1	DRB Vol. 17	200
1666	Request	Navigator	4	DRB Vol. 17	200
1666	Request	Painter	1	DRB Vol. 17	200
1666	Sent	Email	1	DRB Vol. 17	200
1667	Request	Constable	1	DRB Vol. 17	398
1667	Request	Powdermaker	1	DRB Vol. 17	398
1667	Sent	Painter	1	VOC 891	515
1668	Request	Constable	1	DRB Vol. 18	210
1668	Request	Mason	1	DRB Vol. 18	211
1668	Request	Powdermaker	1	DRB Vol. 18	210
1668	Request	Navigator	1	DRB Vol. 18	40
1668	Sent	Constable	1	DRB Vol. 18	210
1668	Sent	Powdermaker	1	DRB Vol. 18	210
1669	Request	Brickmaker	1	DRB Vol. 18	472
1669	Request	Constable	1	DRB Vol. 18	472
1669	Request	Email	1	DRB Vol. 18	472
1669	Request	Engineer	1	DRB Vol. 18	472
1669	Request	Mason	1	DRB Vol. 18	472
1669	Request	Powdermaker	1	DRB Vol. 18	472
1671	Request	Constable	1	DRB Vol. 19	494
1671	Request	Email	1	DRB Vol. 19	494
1671	Request	Painter	1	DRB Vol. 19	494
1671	Request	Powdermaker	1	DRB Vol. 19	494
1672	Request	Carpenter	1	DRB Vol. 20	359
1672	Request	Constable	1	DRB Vol. 20	359
1672	Request	Email	2	DRB Vol. 20	358
1672	Request	Guncaster	1	DRB Vol. 20	359
1672	Request	Mason	1	DRB Vol. 20	359
1672	Request	Navigator	1	DRB Vol. 20	358
1672	Request	Powdermaker	1	DRB Vol. 20	359
1672	Sent	Email	1	DRB Vol. 20	214
1672	Sent	Navigator	1	DRB Vol. 20	214
1673	Request	Constable	1	DRB Vol. 21	323
1673	Sent	Barbier	1	DRB Vol. 21	237
1673	Sent	Constable	1	DRB Vol. 21	323
1675	Request	Constable	1	DRB Vol. 23	361
1675	Request	Email	1	DRB Vol. 23	361

Year	Action	Expert	Number	Source	Page
1675	Request	Guncaster	1	DRB Vol. 23	361
1675	Request	Mason	1	DRB Vol. 23	361
1677	Request	Carpenter	1	DRB Vol. 25	39
1677	Request	Constable	1	DRB Vol. 25	39
1677	Request	Email	1	DRB Vol. 25	39
1677	Request	Mason	1	DRB Vol. 25	39
1677	Sent	Powdermaker	1	Dhiravat dissertation	338
1677	Sent	Carpenter	1	VOC 901	58
1677	Sent	Constable	1	VOC 901	58
1677	Sent	Email	1	VOC 901	58
1678	Request	Carpenter	1	DRB Vol. 26	27
1678	Request	Constable	1	DRB Vol. 26	27
1678	Request	Constable	1	DRB Vol. 26	744
1678	Request	Email	1	DRB Vol. 26	27
1678	Request	Email	1	DRB Vol. 26	744
1678	Request	Engineer	1	DRB Vol. 26	27
1678	Request	Guncaster	1	DRB Vol. 26	27
1678	Request	Guncaster	1	DRB Vol. 26	744
1678	Request	Mason	1	DRB Vol. 26	27
1678	Request	Mason	1	DRB Vol. 26	744
1679	Request	Carpenter	1	DRB Vol. 28	13
1679	Request	Guncaster	1	DRB Vol. 28	13
1679	Sent	Constable	1	VOC 903	895
1679	Sent	Email	1	VOC 903	895
1679	Sent	Mason	1	VOC 903	895
1681	Request	Email	1	DRB Vol. 29	85
1681	Request	Mason	1	DRB Vol. 29	85
1681	Sent	Carpenter	1	DRB Vol. 29	84
1681	Sent	Email	1	DRB Vol. 29	538
1681	Sent	Guncaster	1	DRB Vol. 29	84
1681	Sent	Mason	1	DRB Vol. 29	538
1682	Request	Carpenter	1	DRB Vol. 30	47
1682	Request	Engineer	1	DRB Vol. 30	47
1682	Request	Smith	1	DRB Vol. 30	47
1682	Request	Zwaardveger	1	DRB Vol. 30	47
1683	Request	Engineer	1	VOC 1377	546r
1683	Request	Smith	1	VOC 1377	546r
1684	Request	Carpenter	1	ANRI 2496	148
1684	Request	Carpenter	1	ANRI 2497	1058
1686	Request	Engineer	1	ANRI 2500	715
1686	Request	Smith	1	ANRI 2500	716
1686	Sent	Smith	1	ANRI 2500	716

Appendix 2: Guns gifted by the VOC to Siam, 1693-1709

Date	Recipient	Ordinary Guns	Luxury Guns	Total	Source	Page
03.05.1693	King	0	12	12	VOC 921	964-5
02.05.1694	King	0	10	10	VOC 923	668
02.05.1694	Phraklang	0	2	2	VOC 923	676
01.05.1695	King	0	118	118	VOC 925	499
01.05.1695	Phraklang	0	8	8	VOC 925	517
12.05.1696	King	0	12	12	VOC 927	376
12.05.1696	Phraklang	0	2	2	VOC 927	386
03.05.1697	King	286	0	286	VOC 929	502
03.05.1697	Phraklang	12	0	12	VOC 929	511
02.05.1698	King	400	0	400	VOC 931	275
01.05.1699	King	200	20	220	VOC 933	244
01.05.1699	Oya Pipat	0	1	1	VOC 933	245
03.05.1700	King	310	33	343	VOC 935	399
03.05.1700	Phraklang	0	4	4	VOC 935	405
30.05.1701	King	310	18	328	VOC 936	243
30.05.1701	Phraklang	2	2	4	VOC 936	243
20.04.1702	King	226	12	238	VOC 937	316
20.04.1702	Phraklang	0	4	4	VOC 937	317
15.05.1703	King	36	12	48	VOC 939	248
02.05.1704	King	118	48	166	VOC 941	199-200
02.05.1704	Oya Poeletix	0	4	4	VOC 941	201
28.04.1705	King	46	34	80	VOC 943	217
28.04.1705	Phraklang	0	4	4	VOC 943	218
18.04.1706	King	0	20	20	VOC 945	284
06.07.1706	King	106	18	124	VOC 945	732
06.07.1706	Phraklang	0	4	4	VOC 945	734
03.05.1707	King	250	48	298	VOC 947	250
03.05.1707	Phraklang	8	7	15	VOC 947	252
11.08.1708	King	200	9	209	VOC 949	675
23.04.1709	King	211	14	225	VOC 951	178
23.04.1709	Phraklang	4	16	20	VOC 951	181

The division into ordinary and luxury guns is mine. All guns with adjectives such as “fijn”, “verguld”, “opgekapt”, etc, as well as zakpistolen, were classified as luxury guns. All other guns, not just those described as “gemeen” or “ordinair” were classified as common guns.

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2495 2496 2497 2500

VOC:

Nationaal Archief, The Hague, the Netherlands.

De Archieven van de Verenigde Oostindische Compagnie, 1602-1795, 1.04.02

891 903 927 936 937 943 945 947 1236 1330 1362 14071498 1536 1557 1569 1580 1614 1623 1637 1648 1663 1667 1691 1711 1728 1743 1759 1776 2622 4816

AN:

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