The Swedish Army

According to the testimonies collected in Van der Wyck’s *Schutz-Schriften*, he decided to enter the service of the Swedish army in 1656. This career switch meant that for a long period Van der Wyck would be engaged in military campaigns, leaving no room for optical pursuits. A notary deed of December 1656 confirms that Van der Wyck was in contact with a Swedish general in Amsterdam, a certain ‘Hofsteeter’. In the process of preparation for his departure, Van der Wyck made a last will in January 1657. Another preparation probably concerned the purchase of a set of mathematical instruments made by the Delft instrument maker Anthony Sneewins. In Skokloster Castle, a gilded brass graphometer is preserved, made in 1656 by Sneewins. This instrument was most likely made for Van der Wyck, who at some moment in time must have given it to his commander-in-chief, Gustav Wrangel, the owner of Skokloster Castle (Fig. 9a), where Van der Wyck’s portrait (Fig. 8) is also preserved. Another instrument made for Johan van der Wyck is a brass gunner’s quadrant, engraved with his coat-of-arms (Fig. 9b).

Van der Wyck’s Swedish career had a quick start. Already in November 1657 he reported directly to the Swedish king Carl X Gustav about his logistical operations. In Pinnenberg, near Hamburg, he was engaged in building a bridge across the river Elbe. That same month he was appointed to Adjutant General of the infantry and artillery of the Swedish troops around Hamburg. At that moment the Dano-Swedish War (June 1657 – May 1660) was only a few months old, and in a response to the declaration of war by the Danish King Frederik III, the Swedish forces, attacking from the south, had made enormous territorial gain. Most of Denmark’s mainland was occupied by the Swedish army. As the severe winter had frozen the Danish seawaters, in February 1658 a large force of 9,000 cavalry and 3,000 infantry could cross the ice of the Great Belt, occupying a large part of Seeland, the island on which the Danish capital Copenhagen is located.

This rapid shift of territorial power was a direct threat for the commercial interests of the Dutch Republic, who in earlier years had made agreements with the Danish king, enabling Dutch ships to cross the Sont under profitable conditions. If Copenhagen would fall into Swedish hands, the Baltic Sea would become a Swedish inner sea, causing great harm to Dutch commerce. So, in the sum-

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**Fig. 8** ‘Obrist’ Johan van der Wyck (1623-1679). Portrait (88 x 109 cm) attributed to the painter Abraham Wuchters (1608-1682). In the upper right corner in red the inscription reads: “Obrister Wijk”. (Skokloster Castle, inv. no. 3082).

**Fig. 9 (left)** Gilded brass Graphometer, made in 1656 by Anthony Sneewins, mathematical instrument maker in Delft, given the date, most likely made for Van der Wyck. At some moment in time the instrument probably is presented to Wrangel, who stored it Skokloster Castle (inv.no. 10598). (right) Brass quadrant (radius 10.5 cm) with the coat-of-arms of Van der Wyck, maker unknown. The instrument is a typical gunner’s level, with a quadrant arc divided in degrees 45-0-45, with half degrees in the outer rim and a rigid plummet as used in ballistics. In the 18th century the quadrant is re-used in a different setting, and screwed onto a wooden peg, stuck into the orifice of a wooden cylinder, for the measurement of the angle of a mercury jet. (Rijksmuseum Boerhaave Leiden, inv. no. 9635).
In 1658 a large Dutch fleet of 75 ships and 15,000 men was sent to the Baltic to assist the Danish king, and indeed Copenhagen was relieved, together with the city of Danzig (nowadays Gdansk).

This shift of military balance also affected Van der Wyck. In August 1658 he was captured by Danish forces near the river Elbe, after which he became a prisoner-of-war in Glückstadt. From this unfortunate position Van der Wyck was liberated in June 1659, so he resumed his active service for the Swedish crown. In his Danish captivity he had made his acquaintance with an engineer employed by the Danish, a man with great skills, who however had not been paid for a long time. Van der Wyck now recommended him to the Swedish king, as this man had ‘such good and vast knowledge about new guns, war machines, waterworks and other useful scientific machinery, which he all manufactured with his own hands’. It would be a waste not to employ him in the (better paid) Swedish army.

Van der Wyck’s first assignment was to build new bastions in the harbour of Korsør, a small town whose harbour facilitated the supply of troops and equipment, and therefore was of vital strategic importance for the Swedish army on Seeland. So, an appeal was made to Van der Wyck’s mathematical and practical knowledge of fortification. To strengthen Korsør’s defence, he designed two new bastions: one around the mediaeval fortress and another on a small island in Korsør’s bay. Van der Wyck’s design of both bulwarks is still preserved, drawn together on one piece of paper, now in Riksarkivet Stockholm (Fig. 10a). Today, one of these bastions still is preserved, while the second fortification has disappeared (Figs 10b & 11).

The Korsør fortifications were hardly finished, when in November 1659 the Swedish troops on Funen (in Danish: ‘Fyn’) were attacked by a combined Danish-Dutch force, invading from Kiel. King Carl X Gustav, who at that moment resided in the Korsør fortress at the other side of the Great Belt, reluctantly had to watch from there how his troops on Funen were defeated at Nyborg, just opposite of Korsør. This severe setback for the Swedish enhanced the strategic importance of Korsør’s harbour as the main line of supply for the Swedish army on Seeland and Lolland.

Van der Wyck remained active as the main fortification officer in the region at least until 1660, being busy in places as Korsør, ‘Draecksholm’ (= Dragsholm Slot), Malmo, Landskrona and Castle Kronborg in Helsingfors. But then, in 1660, King Carl X Gustav suddenly died, after which loss the Swedish and Danish governments agreed to a truce, forcing the Danish king to accept the loss of a large territory, especially Danish Sweden (Skåne), at the north side of the Sont. For the Swedes this was a precious strategic conquest, for it broke the former exclusive Danish control over the Sont.

Van der Wyck’s last job in fortification was to secure this conquest, by strengthening the former Danish fortress in Landskrona at the – now Swedish – side of the Sont. This was an urgent task, in view of the threat of the mighty Dutch fleet, the arrival of which had prevented the fall of Copenhagen. But to secure this location with bulwarks was a task too large for the short time available. The he inventive Van der Wyck launched an original idea. He advised to use a few obsolete warships and to
jam them in an organised way at the shore of the Sont, in front of the citadel. Strengthening these ships with wooden palisades and aiming their canons to sea delivered a good stronghold, in a very fast and economical way. Van der Wyck’s advice was indeed followed, and the territory remained Swedish ever since.

**Stralsund**

For our purpose it is not necessary to follow Van der Wyck’s military career in detail. It is enough to know that in November 1660 he was appointed commander of the artillery in the county of Bremen-Verden, being promoted in January 1662 to the Swedish military commander of Stralsund (a Baltic city already conquered by the Swedish army in 1630). From now on he had to report to the Swedish commander-in-chief Carl Gustaf Wrangel, member of the guardian committee that governed the country for the five year old Carl Gustav XI, the new Swedish king. An extensive correspondence between Wrangel and Van der Wyck has been preserved, but unfortunately these letters are strictly devoted to military affairs and contain no information on optical matters or other scientific topics. This, with the exception of only one letter, dated 8 December 1664, in which Van der Wyck reports about his observation of the “great comet” of 1664.

It was in this high position of commandant of Stralsund, that Van der Wyck was confronted with nasty accusations, concerning a presumed severe misconduct years before. In May 1657, somewhere between Antwerp and Brussels, a civil barque had been attacked and plundered. According to some Swedish diplomats, who visited the area early in 1663, it was said that a certain Johan van der Wyck had been the leader of this fierce attack. The said event had happened, just when Van der Wyck was en route from Delft to Poland, where he would join the Swedish army. So, in theory, he indeed could have been involved in this robbery.

In May 1663, when Van der Wyck heard about these accusations, he immediately requested general Carl Gustaf Wrangel permission to leave his post and to go to the Southern Netherlands, in an attempt to clear his name. In the following months Van der Wyck collected numerous statements of persons that could testify about his behaviour as a Renomirter Ehrlchen Cavellier. After his return to Stralsund, in the fall of 1663, he collected these testimonies in a Schutz-Schrift and got them printed in 50 copies. One of these pamphlets survived in Copenhagen (see Fig 3a in Part I). The documents show that Van der Wyck succeeded to prove that the said attack on the barque was carried out by a certain Johan van der Weghe, a farmer’s son from Mechelen.

TheBULLETIN of the Scientific Instrument Society. The lieutenant-colonel J. von der Wyke, Commandant in Stralsund, who excels in Optics, Geometry and other Mathematical Mechanics, and who gladly would be acquainted with your honour, has spent several 10,000 guilders solely on the grinding of glasses. Everywhere he has costly apparatus, among others a grinding dish for a telescopic lens of 30 or 32 feet. Such a telescope he has presented to the Royal Majesty of Sweden personally. […] I have seen Jupiter through such a tube as a large dinner plate. Recently he has presented me a lens for a tube of 6 yards [=18 feet, or about 5.5. meters].

**Preserved Telescopes?**

Caspar March’s report of 1664 is the last archival document that testifies about Van der Wyck’s passion for lens grinding. The mentioned gift of a telescope to the Swedish king makes one wonder if such an instrument still has survived. Unfortunately, the Swedish Livrustkammaren, the museum of the royal collections, contains no telescope resembling March’s description. More hope presents Wrangel’s Skokloster, where several telescopes of the seventeenth century have been preserved. Some of these have particularities that suggest a Dutch origin (Fig. 12). But here too, none of these instruments can be attributed with certainty to Van der Wyck.

Something similar can be said of the Brunswick museums. Among the preserved items of the Dukes of Brunswick-Lüneburg no optical equipment from 17th century Delft can be found. There is, however, at another location one excellent telescope that with a rather high degree of certainty can attributed to Van der Wyck.

It was the antique dealer and – always curi-

During the whole summer of 1663 he stayed in the Dutch Republic, his presence being noted by Isaac Vossius (1618-1689), another Dutch scholar with a great interest in optics. In a meeting with the well-known French traveller Balthasar de Moncony, who in 1663 visited many locations of knowledge in the Netherlands, Vossius praised the Delft telescopes, with which ‘one could see the mountains on the moon’. However, when Moncony went to Delft, he was too late, as Van der Wyck just had left for Stralsund. Shortly before, Christiana Huygens had expressed as his expectation that Van der Wyck would return to his old passion of Poleiser (‘polisher’), as Huygens called it. This hunch was indeed correct. In March 1664, the German scholar Caspar March (professor in mathematics at the university of Rostock) reported the following news to his correspondent, the astronomer Johannes Hevelius in Danzig:

The lieutenant-colonel J. von der Wyke, Commandant in Stralsund, who excels in Optics, Geometry and other Mathematical Mechanics, and who gladly would be acquainted with your honour, has spent several 10,000 guilders solely on the grinding of glasses. Everywhere he has costly apparatus, among others a grinding dish for a telescopic lens of 30 or 32 feet. Such a telescope he has presented to the Royal Majesty of Sweden personally. […] I have seen Jupiter through such a tube as a large dinner plate. Recently he has presented me a lens for a tube of 6 yards [=18 feet, or about 5.5. meters].

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glass with a rather large diameter was used. At that time this was the best guarantee that the middle part of the lens was in the right shape for a good optical performance. Brass diaphragms over the end of each lens were used to reduce their apertures.

The name Cuningham seemed to refer to a British origin, as did its presence in a British collection. However, the object has one peculiarity which the average museum visitor will not notice quickly. The oddity is that the drawtubes bear some letter markings, constituting the words ‘NAHE’, ‘WEITH’ and ‘OVERSICHTIG’ (Fig. 14). This surprising fact was already noted in 1956 by P. van der Star, at the time assistant curator at the Dutch Rijksmuseum voor de Geschiedenis der Natuurwetenschappen, the forerunner of the present Rijksmuseum Boerhaave in Leiden. Again it was Stuart Talbot who had recovered this important information from a letter in the archives of the National Maritime Museum. In his letter Van der Star had made the following comments on the drawtubes:

The words NAHE and WEITH are German words and they mean ‘near’ and ‘great distance’. The third embossed word OVERSICHTIG is a Dutchifying of the German word ‘Obersichtig’, which means far-sighted or ‘presbyopic’. If OVERSICHTIG is placed between NAHE and WEITH, then it means the focussing is for presbyopic people. If on the other hand OVERSICHTIG is placed nearer the ocular than WEITH it means focussing beyond the ‘infinite’, and that is the focussing for short-sighted people. The combination of these three words on the telescope makes it probable that the telescope was made by a German maker who was in frequent contact with Dutchmen.

So when Talbot asked me which 17th-century Dutch or German instrument maker could have such a profile, Van der Wyck already came into the picture, all the more where this telescope met the requirements noted by Hartlib that ‘the Tubes bee [makes] fits to the sight of every ones age’. But how to prove Van der Wyck’s authorship of this instrument? And who was this Jacob Cun(ning)ham, who obviously had commissioned this very precious and precisely made instrument? Could he be found among the many royalist English aristocrats, living in exile in places such as The Hague? But in spite of our efforts, no person with the name Cun(n)ingham could be found. But fortunately an internet search presented a surprising solution.

In the very year 1661 marked on the Greenwich telescope, a Jacob Cuningham of Scottish descent was a parson in Horslunde, a Danish village on the island of Lolland. His name figures on the large list of persons that signed the Danish Souveræiniteitsakterne of 10 January 1661. With this law the Danish king Frederik (1609-1670) constituted his rule as an absolute monarch. This Jacob Cuningham (1619-1680) was the natural son of Admiral John Cuningham (c. 1575-1651), who had formed something of a Scottish community in – then Danish – Norway, during his period as regional governor of Finnmark. His son Jacob had been inaugurated a pastor in July 1644, after receiving a letter of preferment from the crown prince, the later King Christian V. Cuningham first served the parishes of Hyllinge and Kyndby, becoming in 1646 the parson of Horslunde.

A view on the map of Denmark provided me with the following plausible scenario. The village of Horslunde lies at the Great Belt, just opposite of the town of Korsor: the very place...
where Van der Wyck started to construct his bastions in 1659! Over sea the two places are only receded by 44 km, a distance covered daily by various boats and fishermen (Fig. 15a and b).

Moreover, it is certain that Jacob Hanson Cunigham was in close contact with the Swedish troops on Lolland, from the first moment on which they occupied Horslunde in the year 1657.23 Cunigham’s parsonage in Horslunde was used as a command post for Swedish officers during the 13-week-long siege of the neighbouring city of Nakskov (at the west-coast of Lolland). The Swedish army even digged a defensive moat around the building.24 As in Denmark, nor in Northern Germany, there was no scientific instrument maker, capable of making a good telescope until far in the 18th century, the following scenario seems plausible.

During the process of reconstruction of the Korsor fortress, or during Van der Wyck’s transit through Lolland, or perhaps even during a stay in the Horslunde parsonage, reverend Jacob Cunigham and our Swedish ‘Obrist’ Van der Wyck must have met, after which they agreed in making this telescope. So the magnificent Greenwich telescope of 1661 most likely presents us with additional arguments for the fact that Van der Wyck stayed active as an optical artisan, even during his years in active military service.

The Siege of Bremen
In 1665, the Hanse-city of Bremen refused to pledge allegiance to Charles X Gustav’s successor, the young Charles XI of Sweden. This compelled a Swedish reaction and a large army was raised against the city, involving some 14,000 troops. In January 1666, Carl Gustaf Wrangel started the military campaign, with the result that by summer, almost all territory of Bremen-Verden was occupied, except the city itself. As one of Wrangel’s staff officers, Johan van der Wyck was obliged to leave Stralsund to assist in this siege. He became responsible for the positioning of Wrangel’s artillery.25 One of his raids, involving 200 ‘musqueters’ was extensively cited in a contemporary history book.26 However, Wrangel failed to take the city, and negotiations were initiated to seek a peaceful solution. During these long negotiations (which lasted until 1668), the encampments of the Swedish troops around Bremen became more-or-less show places, attracting visitors.

One of them was the Florentine Archduke Cosimo III de Medici, well known for his great interest in the arts and the sciences. In the years 1667-1669 he made two educational tours through Northern Europe, where he paid visits to innumerable locations of knowledge, including printing houses, artists workshops, cabinets of curiosities, anatomical theatres, warfs and lecture halls.27 Cosimo’s tour is a nice indication of the growing reputation of the Netherlands as a hub of useful knowledge, and the travel accounts of Cosimo, De Monconys and others, show in detail the state of the art in the Low Countries, and the impression the Dutch Republic made on curious students, scholars and princes.

On his way from Holland to Hamburg, Cosimo also paid a visit to the Bremen encampments. Obviously instructed earlier by Dutchmen, well versed in optics, Cosimo went directly to Van der Wyck’s headquarters: a former monastery called Kloster Zeven, just between Bremen and Hamburg. Here, ‘herr Obersten von der Wyck’ and his colleague general-adjudant Latermann received the prince with all military honour on 28 February 1668.28 What Cosimo and Van der Wyck discussed is not known, but given the fact that Cosimo visited Delft only five weeks before, the subject of what he had admired in Delft – and the pile of Delftware he bought – probably was touched.29 Whether or not Van der Wyck showed his optical instruments to the Florentine prince remains hidden under the veil of history, but given the prince’s interest, it is more than plausible that optics was among the topics discussed.30 Cosimo even spend the night at Kloster Zeven, so it is hardly inconceivable that Van der Wyck did not demonstrate at least one of his optical products to the prince. Unfortunately, it is only recorded that the following morning Cosimo’s royal household presented an Italian breakfast, regaling Van der Wyck and his fellow officers with Italian wines, which according to the meeting’s account was very well received.31

Schleswig-Holstein-Gottorp: In the Spell of Antoinette de Bourignon
In October 1668 Van der Wyck was ordered to transport his artillery back from Bremen to Pomerania and resume his post of commandant of Stralsund. Van der Wyck kept this position for several years, but he quit his post in 1672. That year was for the Dutch Republic the notorious Rampjaar (‘year of disaster’). In April, the country nearly collapsed under the attack of the joint armies of France, England and Münster-Cologne. The events restored the young prince William III of Orange into the office of Stadholder. Did these events alarm Van der Wyck to return to his old comrades in Holland? Perhaps, for in 1672 a ‘Jan van der Wijck’ is listed among the ‘noblemen of

Fig. 15 (left) Map, showing the relative short distance over sea (ca. 44 km), between Korsor (top) and Horslunde (bottom). The city of Stralsund, where Van der Wyck settled in 1662, is located in the bottom right corner; and (right) Horslunde’s medieval church where pastor Jacob Hanson Cunigham once preached. Photo by the author, 2016.
the artillery’, ready to serve the army of the States General. Unfortunately nothing is known about Van der Wyck’s whereabouts between January 1671, when he wrote his last letter to Wrangel, and March 1673, when he was appointed commander in chief and Krieges-Rath (‘war-counselor’) of Christian Albrecht, Duke of Schleswig-Holstein-Gottorp (1641-1695). This duchy was more-or-less a Swedish protectorate, and in spite of Christian Albrecht’s marriage to a daughter of the Danish king Frederik III (who also was Duke of Schleswig-Holstein-Glückstadt, the northern part Schleswig-Holstein), the Gottorp Duke was a fierce enemy of the Danish, all his life. So this new high position was well in line with Van der Wyck’s earlier career.

However, it would become the darkest period of his life. Since October 1673 Van der Wyck was plagued by various diseases, the description of which would reach the international medical literature – thanks to Holstein’s court physician Joel Langelot. This medical doctor reported exhaustive about the intense headaches Van der Wyck experienced during a visit to Stockholm, during which sufferings he completely lost his ability to reason; at another occasion, in Stralsund, the ‘well-known General-Major Van der Wyck’ suffered a rare attack of Hematidrosis or ‘blood sweat’. During this illness Van der Wyck’s bed sheets had increased three pounds in weight. When washed, the water became so black, that one easily could have used it as ink for the writing of letters. From again another occasion, Langelot reports about a severe swelling of Van der Wyck’s tongue, which disorder appears to be one of the first cases of its kind ever recorded:

This swelling, for three weeks, resisted all the remedies which were applied with the utmost diligence, amongst which were bleedings from the arm and the ranine veins. At length, leeches were applied, as had been before proposed by Langelot, but objected to by the other physicians.

This local evacuation unloaded the tongue, which soon recovered its natural state. All these remarkable diseases makes one wonder if this was the price Van der Wyck had to pay for all his experiments with lenses and mirrors, involving poisonousness liquids such as mercury and antimony. Either way, it was in these circumstances that Van der Wyck came into contact with the Christian mystic Antoinette de Bourignon. She was the charismatic leader of a sect of devout Christians who refused to acknowledge the primacy of the visible church and who adhered to chiliastic ideas, propagating the imitatio Christi and announcing the near end of the World. Bourignon believed she was chosen by God to restore true Christianity on earth.

She gathered a considerable number of followers, ranging from humble artisans to rich merchants, to whom she offered, in a very personal way, spiritual advice. She insisted on a sober, pious life of prayer and contemplation, and abstinence from wealth, worldly pleasures and fame. In the literature on the history of science, she is best known for her contacts with the Dutch microscopist and medical doctor Johannes Swammerdam (1637-1680), who became an adherent follower of her movement in the years 1673-1676. Relevant in this context is, that Bourignon convinced Swammerdam that science and the pursuit of knowledge were just ‘amusements of Satan’. In 1671 Bourignon moved from Amsterdam to Schleswig Holstein with the intention to settle there with some of her followers at a place bequeathed by one of her adherents (Noord-strap, near Husum). But soon after her arrival, her ideas were attacked by local Lutheran clergymen. In February 1674 her arrest was ordered by Johannes Kirchmann, the mayor of the city of Schleswig, and Bourignon’s assets were all seized. Now Van der Wyck received the commission to bring Bourignon to the Castle Tøningen, the main prison of Schleswig, assisted by an escadron of soldiers. During this trip Van der Wyck accidently got hold of one of Bourignon’s pamphlets. After his reading of this document (a German translation of La Solitude Verte), Van der Wyck was shocked that the author of such a devout Christian tract would be imprisoned. So he went to the Schleswig Duke and convinced him to overrule the order to imprison this spiritualist lady, although her assets (which included a printing press) remained confiscated.

In an attempt to regain her possessions, Bourignon turned to Van der Wyck, asking him to mediate further in the conflict with the Schleswig authorities. This personal contact would have severe consequences for Van der Wyck’s further career. The Major General was deeply impressed by Bourignon’s charismatic personality and message. As a result he became one of her fiercest advocates; even in such a passionate way that Bourignon found it necessary to cease the mind of Van der Wyck’s wife. Bourignon regretted that Van der Wyck had not read her writings earlier. She rejoiced his support, but when in April 1674 Van der Wyck suggested to join her group of followers at the Noordstrand, even for her this intention went too far. At that place she only possessed a modest farmer’s house, where one of her followers lived, a former merchant from Hamburg, who had quit his worldly life to live there together with his beasts. Nevertheless, Bourignon suggested that it would be a good thing for the Major General to change his life: ‘I think that you must also quit the world and become a soldier in Christ’s army, with all the fidelity you now have in the temporary militia...’, she wrote him in – a later published – letter.

As the Schleswig Lutheran clergymen unceasingly continued to attack Bourignon’s writings, in such a way that her safety was threatened, Van der Wyck and his wife now offered her asylum at their own home. In this guarded mansion, Bourignon stayed until she could rent a house, elsewhere in Slesvig. It must have been during this sojourn that Bourignon was introduced in Van der Wyck’s optical equipment. Earlier, she had shown some interest in Swammerdam’s work – not as a contribution to science per se, but as a means to contemplate God. Swammerdam’s work on the microscope, Ephemeris (1675) included, for instance, many letters by Bourignon. In the same personal way, she communicated with Van der Wyck. It is telling that she named one of her books of the period, in which she elaborated on Van der Wyck’s efforts to help her, La Sainte Vissière (in English: ‘The Holy Telescope’). Later this tract was translated into Dutch (most likely by Swammerdam) and printed as De Heilige Verrekerker (1681; see Fig. 16). It is plausible that this book, in which she used the metaphor of the telescope for explaining her intentions, was written especially for Van der Wyck.

A Major General Under Attack

Van der Wyck’s openly demonstrated support for the highly controversial Bourignon met fierce resistance from Bourignon’s opponents: the Lutheran clergy and Johannes Kirchmann, the Schleswig mayor who had ordered Bourignon’s arrest. One of the Duke’s administrators,
Friedrich Hans Gloxin (in fact a colleague of Van der Wyck in the government of Schleswig Holstein Gottorp), seized the moment to launch a public smear campaign against the Major General. Gloxin felt offended by a statement that Van der Wyck had entrusted confidentially to a fellow officer, who however appeared to be Gloxin’s brother-in-law. Not surprisingly, this unflattering opinion had reached Gloxin, with the result that he challenged Van der Wyck to a duel in October 1674. The Major General just suffered one of his severe illnesses, so from his sickbed he reacted that this fuss did not deserve the honour of a rapier. This negative response sparked an avalanche of printed pamphlets, advocating the position of both sides.48 In the meantime Bourignon used her influence on Van der Wyck by telling him that what he experienced was a test of God, calling him to resign.49 Van der Wyck couple remained the children of the earlier will of 1657, the main heirs of the Van der Wyck. The news of his restlessness also reached Bourignon in Schleswig, who in a letter to a friend remarked that it would be beneficial to Van der Wyck to meet and speak to his fellow optician Johannes Swammerdam.52 At that time – August 1675 – Swammerdam, after more than a year of doubt, finally had decided to join Bourignon’s community in Sleswig. He would leave by boat from Amsterdam on 15 September 1675. The following May the two adherents of Bourignon – both students of nature and opticians – were together in Copenhagen, on a mission to request mediation of the Danish king: Van der Wyck, probably at the request of his former sovereign, the exiled duke of Schleswig Holstein Gottorp, and Swammerdam, at the request of Bourignon, who still fought for the return of her confiscated goods and also desired a safeguard for the – now united – Schleswig Holstein territories.53 What Van der Wyck and Swammerdam discussed together is unknown, but a month later Swammerdam would leave Bourignon’s circle, to regain his microscopic researches in Amsterdam. Living in Bourignon’s direct neighbourhood had not brought him what he expected. Swammerdam nevertheless always stayed in touch with Bourignon as spiritual leader, exchanging letters with her and translating several of her writings in Dutch.54

Van der Wyck, too, stayed in the Bourignon’s sphere of influence. Day and night he longed for my presence’, Bourignon wrote to a disciple in April 1677.55 Van der Wyck even considered selling his Noordwijk estate, being prepared to take the financial loss.56 In August 1677 Dodo II, Baron zu Inn- und Knyphausen (1641-1698), a former Swedish army officer and also one of Bourignon’s followers, even offered Van der Wyck a mansion near Eden, where he could become the supervisor of one of his estates. But the couple refused this generous offer. They stayed in Noordwijk, running a household with many servants.57 De Bourignon was not pleased to hear about this kind of life style: ‘They have not arrived at that stage of perfection they ought to aspire. The practice is something else than the theory’, she added to a friend.58 In the mean time, Van der Wyck and his wife received several friends in Noordwijk, coming from various pious groups: not only adherents of Bourignon, but also persons active in other parts of the mystical spectrum, such as adherents of the German pietistic preacher Johann Jakob Schütz from Frankfurt am Main.59 In the autumn of 1678 Van der Wyck fell ill again, tortured by severe headaches.60 Less than a year later, in November 1679, death would free him from his ailments. His wife, Johanna van Hoorn van Brouhese, followed her husband into the grave within a few months. She did not part from life, before she had made a new last will.61 In line with an earlier will of 1657, the main heirs of the Van der Wyck couple remained the children of the late reverend Eleazar Lotius, in life a Calvinist pastor in The Hague.62 But other beneficiaries were also remembered. Substantial legacies were given to the poorhouses of Emden, Amsterdam and Noordwijk-binnen, as well as to the local church and orphanage. The parishes (diaconie) of Noordwijk aan Zee, Katwijk aan Zee, Bergen op Zoom, Delft and The Hague also received gifts for the relief of the poor. Finally, the church of Breda got some money. Thus, most places where the couple had lived were remembered in Johanna’s will. But interestingly, not all. No institution or person in Stralsund, Bremen or Schleswig was remembered; nor any person from the Bourignon circle. The only foreign legacy went to a niece of

Fig. 17 The mansion De Lindenhof in Noordwijk-Binnen. Seat of Van der Wyck and his spouse from February 1675 until his death in November 1679 and her death in August 1680. Present state of the building after a renovation in the 18th century.
her late husband, demonstrating that at least some contact with the German family had been preserved.63 There was also a Delft beneficiary: Maria Catharina Noté (1622-1682), in whose house at the Oude Delft the couple probably rented their lodgings in the years 1654-1657.64 Finally three of the couple’s former servants were remembered, as well as their Dutch lawyer.65

The grave of both spouses in the medieval Church of Noordwijk-Binnen was covered with a costly tombstone bearing two large and 16 smaller escutcheons. This impressive memorial survived the devastation of the French era, when most heraldic symbols were banned from the Dutch churches, and many gravestones were ripped of their armorial bearings. So, today the stone still can be admired in full glory (Fig. 18). Given however is the large wooden memory table that once was clinged to the wall above the grave, also showing Van der Wyck’s coat-of-arms, the presence of which is recorded in the travel journal of a British visitor to the church in 1698.66 Half a century later, in 1747, the mere sight of the gravestone brought a local rhymester to a sen-

illnesses, found the inspiration ‘to withdraw from the world’, to leave the world of learning behind and to retreat in contemplation in the village of Noordwijk-Binnen, where his grave still can be seen. Van der Wyck’s life shows that the scientific revolution not only involved learned scholars, but also smart practitioners with highly developed practical skills and religious sensibilities, who seized the opportunities presented at any location they encountered.

Epilogue

Johan van der Wyck never published any scholarly work, but his ingenious optical products brought him the attention of several royalties and scholars. Moreover, his life presents a stunning overview of the interrelationship of location with a person’s achievements. The Breda academy brought him a lifetime fascination for optics; the city of Delft inspired him to construct ingenious perspective boxes; the Swedish army presented him the opportunity to design and build bridges and fortifications; at the battlefield in Northern Germany he could use his gunner’s knowledge to aim his artillery; at the Korsor fortress he probably received the request to make the wonderful Cuningham-telescope, now in Greenwich; at his Bremen encampment he was selected to host an art-loving Florentine prince; at Slotzand he could master his organizational and governmental qualities; at Schleswig his soul, tortured by severe

4. This unsigned quadrant is only polished and engraved at one side and therefore it probably is not made by Sneewins, who always added a finishing touch to his instruments. As the coat-of-arms is the most prominent part of the quadrant, it could be engraved by Abraham Santvoort, Van der Wyck’s friend from Breda. In the 18th-century this evidently 17th century instrument is is re-used in a different setting and attached to a wooden model for the demonstration of the flow of a mercury jet.


6. Stefan Hjartaron, Kampen om fack-

7. Van der Wyck to Carl X Gustav, 17 June 1659: ‘Dieser mann hat solche gute und vaste wissenschappen von den neuen Rohren Kriegs machinen, wasserkonsten, undt sonsten viele gross nutzbare wissenschappen, die er alles mitt eigener handt verfertigt...’

8. Van der Wyck to Carl X Gustav, 29 September 1659: ‘Gott [hat] uns einen uber dei messen wakeren ingenieur gefuhret, ... Mr. Muller, ein guter Edelman, dessen vater einer der besten ingenieurs in Frankreich ist’.

9. Van der Wyck to Carl X Gustav, 29 September & 8 October 1659.

10. Van der Wyck to Carl X Gustav, 12 December 1659.

11. Only years later, between 1667 and 1675, the Landskrona fortress received its very extensive complex of bastions that at present is still preserved.


13. Van der Wyck to Wrangel, 8 December 1664: ‘Den grossen Comet habe ich obser-

14. Ibid., p. [7].

15. Cf. Fokko Jan Dijkstra, *A View from the Mountain. The Development of Isaac Vos-

16. Balthasar de Moncony, *Journal des Voy-

Notes and References

1. *Schatz-Schriften*, p. 6, referring to Adolph Johann von der Palzt-Kleeburg (1629-1689), the younger brother of King Carl X Gustav, as the commander. According to Van der Wyck’s Breda acquaintance Jan van Vliet he already considered to join the Swedish army in November 1654. Cf. Janus Vitius to Nicolaas Heinsius, 24 November 1654, in: Burman, *Sylloges epistolarium*, letter XL.

2. *NA The Hague, Notary Cornelis van Dell-

3. In this will, he appointed his wife as his sole beneficiary. When, in the event of his death, she would remarry, she would be obliged to give a third of his legacy to the reverend El-

4. ‘...sonder van de tijdelijcke goederen die niet alleen hier, bij Godt almatchicheijt [sijn verkeegen], maer [ook] hem uijt ‘t recht als oudste zoon sijns vaders huisj competerende sijn’.

Fig. 18 Tombstone of Van der Wyck and his wife in the old Church of Noordwijk.

Drawing by Victor de Stuers (19 th century), when the stone was attached to a side wall.
30. Only a few months before, Van der Wyck also had paid a visit to his former hometown Delft, probably in the aftermath of the ‘Trety of Breda’, where in July and August 1667, he most likely had served in the retinue of the Swedish ambassadors. Cf. City archive Delft, Hervormde Gemeente Delft, inv. no. 468, fol. 133 (November 1667): entry of ‘jonker’ Johan van [der] Wyck, staying in the ‘Molen straat’. For the ‘Trety of Breda’ (1667), see F.A. Brekelmans, ‘De Vrede van Breda en de stad’, Jaarboek De Oranjeboom 20 (1967), pp. 18-34. Interestingly in 2015, in a Swedish auction, an astronomical compendium emerged, made in 1666, in Delft by Anthoni Snewins, definitely constructed for the Baltic region. It is tempting to think that this instrument was in Van der Wyck’s return luggage from Delft to the Baltic. Cf. Uppsala Auktions Kammarr, 9-12 June 2015, no. 291. Bought by the Zuylenburgh planetarium, Oud-Zuilen.
32. Meijer, Diarii Europaei: ‘... und selbige mit Italianischen Weinen wol tracteren liesen’. After his visit Cosimo sailed to Hamburg through the river Elbe, on board of a Swedish ‘Jacht Schiff’.
33. ‘Liste van de officieren van den treyn van de artillerie, welke tot de aanstaende expedi-tie deszejaers 1672 gereuereerd werden’, Militaire Spectator (1854), p. 86.
34. Van der Wyck’s last letter from Stralsund to Wrangel is from 3 January 1671. The date of his appointment in Holstein is given by De Baar, Ik moet spreken, bijlage D.
35. A description of Van der Wyck’s dis-eases was published in the Miscellanea Curiosa, sive Ephemeridum Medico-Physicarum Germanicarum Anni 1675/1676. A French translation can be found in: Collection Aca-démique, Composée des Mémoires, Actes ou Journaux des plus célèbres Académies & So-ciétés Littéraires étrangères (Dijon, 1755), pp. 254-255. See also Deutsche Zeitschrift für Chirurgie, 23 (1886), pp. 494-495. For the physician and alchemist Joel Langelot (1617-1680), who had a degree from Leiden University, see: Oliver Humberg, ‘Joel Langelott, Arzt und Alchemist am Hofe Friedrichs III’, in: Die Bibliothek der Gottorf her Herzöge, eds, Ulrich Kuder u.a. (Nordhausen: Bautz, 2008), pp. 79-90.
36. Also reported by another witness in Grösste Denkwürdigkeiten der Welt oder so genannte Relationes curiosae, vol. 1 (Ham-burg, 1683), p. 286.
38. Van der Wyck mentions for instance his need for ‘mercure d’antimoine’ in a letter to L. Alzema, dated 4 May 1656. HAB MS 82 Novi, fols, fols 256vs.
41. ibid., p. 407. This concerned Antoinette Bourignon, Traité admirable de la solide vertu (Amsterdam: Arens, 1676). A German translation was printed only in 1679: Wunderwerhtes Tractus von der Wahren Krafft-Tugend: Welche nicht bekant ist bey den itzigen Menschen; weil sie die Schein-Tugend nehmen an statt der wahren Krafft-tugend/ die Jesus Christus an allen wahren Christen unterwiesen hat (Amsterdam, 1679).
43. Bourignon to Mrs. Van der Wyk, 26 March 1674. Oeuvres XIX, letter 57.
44. Bourignon to anonymous disciple, 1 April 1674. Oeuvres X-2, letter 27: ‘C’est dommage que cet home n’a pas lu mes écrits par long-temps’. 
45. Bourignon to Van der Wyck and his wife, 11 April 1674. Oeuvres X-2, letter 29: ‘Mais si Dieu nous redresse par votre entremise, je penserai qu’il veut que vous quittiez assise le monde, & deveniez militaire de la milice Chrétienne, avec autant de fidélité que l’avez été dans la milice temporelle, en laquelle vous ne devez demeurer, sinon autant que vous
pourrez maintenir la justice, & soutenir & aider les oppresseurs..."


49. Bourignon to Van der Wyck, 15 November 1674. *Oeuvres III-2*, letter 5: ‘Vous n’avez que trop long-temps servy le monde. Em- ployez le peu de vie qui vous reste au service de Dieu’.

50. Rechterlijk Archief Noordwijk, inv. no. 180, no 90/92, 5-2-1675. The purchase in- cluded a so called *Herenbank* or ‘Gentleman’s bench’ in the local church. See also City ar- chive Delft, NA (notary Willem van Asend- elft), 10 November 1674.

51. City archive Delft, NA, inv nr 1681, no 68 & Rechterlijk Archief Noordwijk, inv. no. 180, no 116: 26 July 1675. See also City archive Delft, NA (notary Jacob Spoors), 21 July 1675. A month earlier, Van der Wyck and his wife also had executed their last will be- fore Spoors. Cf. NA-1681, 6 June 1675.


56. Bourignon to anonymous disciple, 18 June 1677. *Oeuvres X*, letter 52: ‘H. me mande d’avoir visité le Général van der Wijk, & le trouve, avec sa femme si las du monde qu’ils ne savent plus converser avec personne, & aspirent après l’heure que nous nous assemblurons en quelque lieu pour se venir joindre à nous. Il vou- drait bien venir le Chateau qu’ils ont acheté en Hollande, en perdant beaucoup. Il semble que le Diable void que Dieu dispose les coeurs de plusieurs; pour cela est il si furieux’.

57. De Baar, *Ik moet spreken*, bijlage D.

58. Bourignon to Johan Conrado Hase, 3 No- vember 1677. *Oeuvres XIX*, letter 152: ‘Car ces personnes ne sont encore arrivées à la per- fection qu’elles se persuadent. La pratique est bien autre chose que la theorie’.


61. City archive The Hague, NA (notary Adria- aen van Adrichem), 3 April 1680.

62. These beneficiaires were Amelia and Pe- trus Lootius, children of the reverend Elizar Lootius and Johanna Pels (†1680) and Willem Adriaenssz de Vries, ‘proponent’ at Leiden, each for half of the estate. Cf. Deed of sale of *De Lindenhoft* to Maria Nieuhoven, the widow of the late Pieter de Riemer, *medicine doctor* at Rotterdam for 4900 guilders. Rechterlijk Archief Noordwijk, inv. no. 181, deed no 182, 12 May 1681.

63. This concerned Anna Catharina Knoop in Anhalt, the only child of Gudula Agnes Ma- ria van der Wyck (1622-?) and Derk Jan von Schlem from Anhalt. Cf. De Morees, *Het Minnisterie geslacht Van der Wyck*, p. 138.

64. Catharina’s sister, Cornelis Lowijsa Noté (1633-1658), was also one of the beneficia- ries, but she already had died years earlier. In April 1680 Catharina already had received her inheritance as a loan. NA Den Haag, No- tary Van Adrichem, 3 April 1680; Notary Van Deutenor, 20 June 1680.

65. Interestingly the former servant Rijckje Lourens [Hasenduijn], widow of Cornelis Cornelisz. van der Wouw who had married in March 1675 to the Delft *Plateeschilder* (painter of Delftware) Jan Jacobs van Scha- gen (*†1686*, demonstrating another link with the city of Delft).


67. All the places and the hospital mentioned in the diary.

68. Men moet het van der Wyck gedenken | Hier rust, hier slaapt hij bij zijn vrouw | Die beide, vol van liefde en trouw | De weesjes nog om ’t jaar schenken | Een dag, een uur, een ogenblik | Bedroefde wezen te verblijden | Toont ons een Christ ijk medelijden | Waarneem God zelfs is in zijn schik’ |

69. This demonstrates a Christian pity | present the orphans yet every year | a day, an hour, an instant, | to gladden the miserable orphans. | This is a reference to Christianity by | with which even God himself is pleased’.

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