

AMSTERDAM

The Amsterdam pilot intends to develop an inclusive maker 'ecology' in Amsterdam NDSM area, and connect the local Hub to the historical context of craftsmanship and industrial heritage. NDSM is a neighborhood in Amsterdam, Netherlands located on the former terrain of the Nederlandsche Dok en Scheepsbouw Maatschappij (NDSM) shipbuilding company. It sits in Amsterdam-Noord beside the IJ river. This will be the starting point for the Centrinno pilot in Amsterdam, slowly widening its focus to the whole of Amsterdam North. Although fairly gentrified, Amsterdam North (including Buiksloterham and NDSM) is seen as a cultural incubator, making it an interesting area for CENTRINNO.

4.4.1 General information

4.4.1.2 Pilot background & introduction

The Amsterdam pilot will focus on the area of NDSM in Amsterdam Noord, connecting the different maker communities and previous industrial expertise to the new context of CENTRINNO. A factor of distinction in the Amsterdam Pilot of CENTRINNO is the focus on creating a network of existing makerspaces and maker culture in the area, as we are not starting with a fixed location to house the pilot.

By focussing on strengthening existing networks and creating opportunities to validate a new sustainable industrial context in the city of Amsterdam we aim to add value to the local ecology of makers, inhabitants and other stakeholders.

The pilot combines the richness of Amsterdam's material and immaterial heritage in craftsmanship and industry, and vibrant creative contemporary culture. We embrace the many components of the industrial heritage of the NDSM area and Amsterdam Noord, and seek to understand how neighbourhoods in our rapidly growing cities can be developed not only into areas for work and living, but into hubs for living, learning, being creative and productive. In particular it will shape the role and relevance of vocational craftsmanship at the heart of the city's future productive economies.

Since the middle ages all the way through to the end of the 17th century, guilds were core to Amsterdam's economic and cultural structure. Amsterdam had 51 guilds in 1760, ranging from a tailors' guild organized in 1348 to a wood-saw-millers' guild organized in 1698.

Craftsmanship was at the heart of the Amsterdam creative and productive activity. Recent research by HMC Wood and Furniture School shows that creative craftsmanship yet again will grow to play an important role in our cities nearby future local economies: there is a rise in demand of high quality, authentic locally produced creative products (source: **Bol, T.**, Ciocca Eller, C., Van de Werfhorst, H.G., & DiPrete, T.A. (2019). School-to-Work Linkages, Educational Mismatches, and Labor Market Outcomes. *American Sociological Review*, 84(2), 275-307).

Yet the creative craftsmanship sector is often limited by a lack of resources, infrastructure (local production facilities and chains) and an underdeveloped creative craftsmanship culture. The HMC school has developed a four-year educational programme called Creative Craftsmanship to make a first step in turning this. The programme focuses on textile, leather and wood craftsmanship, training students to become leather workers, hatters, shoe makers

and furniture designers and makers. The programme combines traditional skill development with new (digital) technologies. At the school students have access to machines like CNC millers, laser cutters and 3D printers and scanners. While HMC students throughout their training have unlimited access to a great set of tools and equipment, after graduation they face the challenge of access to these costly machines, collaborative workspace and the creative industries network and stakeholders to help them create thriving businesses. Through co-creative processes, bringing together HMC alumni with local communities, the professional networks of Waag and Pakhuis de Zwijger, in collaboration with the Municipality Monuments and Archeology Department, the CENTRINNO Amsterdam pilot will work on the establishment of the first Amsterdam Creative Craftsmanship Hub for productive cities and lifelong learning for vocational professionals. Starting from the knowledge and insights gained through both the Cartography and Living Archive we

- 1) will develop training programmes for product innovation,
- 2) we will engage in dialogue with local neighbours and stakeholders in the area, allowing them to learn basic digital fabrication skills and grow a new mindset toward vocational practice and creative craftsmanship products,
- 3) we will organize public events and network activities in the hub and in different locations across the city to create wider city impact. All combined we build local creative and productive culture that is indispensable for the future, and rooted in its past.

This will happen with the focus on a decentral, but physical, manifestation of the CENTRINNO Hub. By connecting different makers and stakeholders, and having these functions of the hub spread out over multiple places and actors, we want to create a system that builds on the existing dynamic, expertise and ecology, to create a hub that serves the existing structures of making, and helps them to strengthen their position for the future, with social sustainability as well as ecological and economical. This can mean that more public facing events are in one location, and the building and transferring of knowledge in the CENTRINNO School program can be facilitated in a different location. And as some of the experts of shipbuilding have moved away from Amsterdam entirely, it might be necessary to step outside and visit these experts to involve past knowledge. Decentral, but with the heritage of the area as a central pivot to connect each part to.

LINKS

Buiksloterham ([link 1](#), [link 2](#))

A Tradition of Resistance

Themes: contestation, instability, resistance, class-conflict, unity



Protest over wages in 1968



Protest over mooted NDSM closure in 1978

NDSM has always been a site which has been associated with times of political struggle and collective resistance. Shipbuilding as a whole has been a particularly strike-prone industry, and between its conception and 1995, the steelworkers of the NSM, NDM, and NDSM conducted strikes 61 times, more than any other Dutch organisation. (Van der Velden, 2017 and 2009) A strike of nail-boys lasted for two months in 1923, before a 10% pay cut led to further strikes (and layoffs) some months later (NDSM-Herleeft, Bloei). Later, during the German occupation during world war 2, just before the NSM and the NDM merged, members of the NSM engaged in passive resistance against German industrial production: “accidentally,” machines broke down, equipment was messed up, fires broke out,’ as

delaying and frustrating tactics. Additionally, a strike was organised on 17th February 1941, as a 'prelude to the great February strike of 1941 as a protest against the persecution of the Jews', linking the political actions of the shipyard with wider society. The yard also distributed food and medical supplies to people in 'the underground', sometimes via swimming through canals by cover of night (NDSM-Werfmuseum, NSM-Noord). Striking also took place numerous times later, such as in 1960 (pictured), when the yard was faced with closure, and in 1977, where workers refused to pass the main gates until funding was provided (Van der Sluis, interview, March 2021). Acts of resistance were not limited to the site's shipbuilding past. The modern-day conception of the NDSM is rooted in the anti-capitalist, anti-colonial, environmental activism of the Provos group formed in the 1960, and the squatter's movement springing from it, called the Squat Group Grachtengordel (see: Labuhn, 2019, 24-39). A well-organised political force, the group protested the eviction of tenants from unused housing, and helped bring squatting rights into law. Upon being forced out of the centre and de pijp, the group moved to places such as what is now Pakhuis de Zwijger, and eventually to the NDSM.

What does this add to our understanding of the site?

Acts of resistance and the tradition and practice of protests are clearly part of what gives the area its cultural identity, and it is important to acknowledge the conditions - such as precarity, physical labour, and devaluation of work - that have led to resistance being necessary within the confines of the space. The fact that resistance forms part of the NDSM's cultural identity is reflected in the fact that the municipality gave funds to the Kinetisch Noord group formed from the initial squatting communities in place, in order to develop the site in the early-2000s. In fact, one of the issues with the NDSM today in the context of gentrification is that its 'broedplaats', cultural incubator philosophy may be seen as too aligned with the generation of a future cultural economy for the municipality, and less about creating genuinely alternative spaces of resistance to do 'everything that God (the municipality) has forbidden' (De Klerk, Tussentijd, 5).

References/sources/evidence:

Gustav Wollentz, Cornelius Holtorf, Ander Högberg, and Sarah May, 'Toxic Heritage: Uncertain and Unsafe', *Heritage Futures: Comparative Approaches to Natural and Cultural Heritage Practices*, Rodney Harrison et al, (London: UCL Press, 2020), 294-312.

Sjaak Van der Velden, 'The Dutch shipbuilding industry, 1950-2012', *Shipbuilding and Ship Repair Workers around the World*, ed. Raquel Varela, Hugh Murphy and Marcel Van der Linden, (Amsterdam: Amsterdam University Press, 2017),

Ruud van der Sluis, 'Bloei en Ondergang van een Amsterdamse Werf', *NDSM-Herleeft*, accessed at: <https://www.stichting-ndsm-herleeft.nl/bloei-en-ondergang-van-een-amsterdamse-werf> 7th July 2021

Ruud van der Sluis, 'NSM in Noord', *NDSM-Werfmuseum*, accessed at: <https://www.ndsm-werfmuseum.nl/de-werven/nsm-noord> 7th July 2021

<https://iisg.amsterdam/en/detail?id=https%3A%2F%2Fiisg.amsterdam%2Fid%2Fitem%2F646635> 'End of occupation NSM. Director Bosman consults with OR-NSM and Industriebond'- Discussion of sit-in-strikes

<https://iisg.amsterdam/nl/detail?id=https%3A%2F%2Fiisg.amsterdam%2Fid%2Fitem%2F657471> - action to keep NDSM open

Ruud Van der Sluis, email interview with Harry Reddick, personal interview, De Blauwdruk, NDSM, Amsterdam, 23rd March 2021.

<https://iisg.amsterdam/en/detail?id=https%3A%2F%2Fiisg.amsterdam%2Fid%2Fitem%2F1487445> - satirical artwork depicting the closing of companies

'Strikers here were not nearly as fanatical as, for example, at the NDSM in Amsterdam, where under the leadership of the communist trade union evc it was much easier to strike.' - E J. Weterings, *Herinneringen aan De Schelde: Werknemers vertellen hun verhaal* (Vlissingen: Uitgeverij ADZ: 2000)

<https://archieff.amsterdam/inventarissen/file/1aa812d516625c832ce0350c399f2c7c> - Inclusion of the Industriebond Federation of the Dutch Trade Unions (FNV) supports strike actions organized by Amsterdamsche Droogdok Maatschappij nv (ADM) / Nederlandsche Scheepsbouw Maatschappij (NSM). NB Information on loose papers. , 1 Apr 1980 - copyrighted but could be worth looking into

<https://www.nationaalarchief.nl/onderzoeken/fotocollectie/ac9512b2-d0b4-102d-bcf8-003048976d84> Strike and demonstration companies (NDSM, ADM, Verschure VMF-Stork, e.a.) in Amsterdam-North; overview meeting on site NDSM 1977

Sjaak van der Velden, *Stakingen in Nederland*, (Rotterdam: Self-published, 2009), 199.

<https://poliziek.info/sticker-fotos-buitenkans-ochtend-ndsm-terrein/> on art, anarchism and activism in the NDSM in the 21st century

<https://www.historischarchief-toz.nl/bekijk-film-van-3-minuten/> - 3 minute documentary on keeping the ndsm open

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Migration and the Shipyards

Themes: Migration, contestation, diversity, integration, multidirectionality, destabilised narratives, nationalism, colonialism



Former housing of Yugoslavian workers on the old Cornelius Douwesweg



Life in Ataturk Turkish village in NDSM

The NDSM can be considered emblematic of the Dutch nation's historical presence on the global stage, one of the 'seven sisters' of Dutch shipbuilding in the 1950s-60s which meant the country was 'in fourth place in the list of shipbuilding countries worldwide' (Spits, 'The Other Side', 2018). The labour undertaken in the NDSM was part of 'one of the most prominent and visible industries of critical importance to our nation,' thus contributing to a longer lineage of the Dutch having 'made their country... literally' (Van der Sluis, interview, 2021). Even in the context of this (literal and imaginative) construction of the Dutch nation however, the NDSM is emblematic of the impact that immigrants to the shipyards had on its trajectory. This lineage begins even before the conception of the shipyard's first conception as the NSM, with the site that would be the shipyard's eastern base the same as that previously used by the Dutch East India Company for constructing imperial vessels centuries before (Loos, 'History', 2017). In the 1920s, when it was still the NSM, immigrants from Kiel,

Hamburg and Bremen in Germany came to assist with shipbuilding (NDSM-Werfmuseum, 'NSM-Oost'), and 'over time, many nationalities have passed through the NSM, NDM, and NDSM, including Germans, Belgians, Dutch Indies, Poles, Russians, Irish, English, Greeks, Yugoslavs, Italians, Antilleans, Morrocans and Turks' (NDSM-Werfmuseum, 'NDSM').

One of the most significant communities was the Turkish, having initially been invited to the country via a state recruitment project aiming to address the housing shortages by importing foreign workers. The 'Turkendorp' village began to grow from 1967 when the NDSM began to recruit their workers to address staff shortages, adding cultural amenities like a football team, library, and drama school. While the area became a cultural centre however, conflicts arose between the Turkish and the Dutch over domestic issues like daily meals, and overall the communities became somewhat separate. Eventually residents began to drift away, in coincidence with the weakening shipbuilding industry in the 1970s, before the Dutch authorities closed the residences in 1978 (Ernst, 'Woonoord Atatürk in Noord').

What does this add to our understanding of the site?

Immigrants have always had an important role to play within the history of the NDSM, but this is not necessarily reflected in the modern-day site or its surroundings. An acknowledgement of diversity throughout history can help to destabilise imperial narratives of grand, national exceptionalism (as is occurring frequently throughout the heritage field on a wider scale at the moment, particularly in the Netherlands) which can allow heritage places to be more inclusive. The history of the Turkish residences near the NDSM helped to establish their visibility within the city, 'important for the recognition and acceptance of immigrant groups' (Sezer, 'Visibility', 1). However, equally important is the similarity of unemployment experienced by immigrant and Dutch workers alike when the shipbuilding industry and the NDSM began to collapse. The deep emotional and material wound of the deindustrialisation process and the displacement of workers are experiences resonant with both Dutch and Turkish workers, which may contribute to the communication of multidirectional memories between communities considered to be separate, and aid inter-community relations (Rothberg, 2009 / Rothberg & Yildiz, 2011). In turn, this may contribute to an understanding that these communities were affected most significantly by economic precarity rather than cultural or ethnic differences, thereby making the issue of class at the NDSM more visible and complex.

References/sources/evidence:

Ceren Sezer, 'Visibility of Turkish immigrants in Amsterdam', TU Delft - Urbanism – Working paper series, 2018, 1-29.

Iris Loos, 'History of the NDSM Site', *NDSM*, published 9th August 2017, accessed at: <https://www.ndsm.nl/en/story/artikel-geschiedenis-ndsm-loods/> 7th July 2021

Mila Ernst, 'Woonoord Atatürk in Noord', *Ons Amsterdam*, published 1st February 2000, accessed at: <https://onsamsterdam.nl/woonoord-atat-rk-in-noord> 7th July 2021

Michael Rothberg & Yasemin Yildiz, 'Memory Citizenship: Migrant Archives of Holocaust Remembrance in Contemporary Germany', *Parallax*, vol. 17, no. 4, (2011), 32-48.

Michael Rothberg, *Multidirectional Memory Remembering the Holocaust in the Age of Decolonization*, (California: Stanford University Press, 2009).

Ruud van der Sluis, 'NSM in Oost', *NDSM-Werfmuseum*, accessed at: <https://www.ndsm-werfmuseum.nl/de-werven/nsm-1>

Ruud van der Sluis, 'NSM in Noord', *NDSM-Werfmuseum*, accessed at: <https://www.ndsm-werfmuseum.nl/de-werven/nsm-noord> 7th July 2021

Elisabeth Spits, 'The Other Side of the IJ', *NDSM: Toen & Nu/Past & Present*, eds. Elisabeth Spits, Bas Kok, Wouter Botman, (Amsterdam: Uitgeverij Boekschap, 2018)

<https://vijfeeuwenmigratie.nl/node/77> - Guest workers from Turkey extra information

<https://vijfeeuwenmigratie.nl/sluiting-woonoord-turkse-arbeiders-die-bij-ndsm-werkten> - closing of NDSM living area for turkish workers - NB: there is a lot of material seemingly available on this site (five centuries of immigration) but an account is required to access it - it may take some time for the account to be approved

<https://iisg.amsterdam/nl/detail?id=https%3A%2F%2Fiisg.amsterdam%2Fid%2Fitem%2F646745/>

<https://iisg.amsterdam/nl/detail?id=https%3A%2F%2Fiisg.amsterdam%2Fid%2Fitem%2F657414/> - migrant workers protesting mooted closure of the NDSM

nieuwdakota.com/uploads/Oude%20Amsterdammer%20LR-OA-26-06-12.pdf - 'old amsterdammer' publication - with articles about 'F. Kuiper's herring cart', and an interview with turkish guest worker Mehmet Ali Dayan, who moved in 1963 to Amsterdam and became an NDSM worker soon after, becoming a crane operator, and information about camp Ataturk and what people did there.

<https://www.keen.nl/projecten-keen/turkse-pioniers> - Nieuw Dakota infographic related to exhibition discussed in old amsterdammer publication above

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Identity, Locality and Globalisation

Themes: Authenticity, gentrification, identity, place, meaning, transition, absence, family

One of the key conflicts within the NDSM is who and what the site is for. During the site's shipbuilding and repair history, these activities have been the site's clear main purpose, giving the NDSM/NSM/NDM a clear sense of place and a specific local identity, with the workers at its heart. After all, 'This industry was not just an employer; it was in the people's blood. Sometimes, whole families worked on the yards for generations. Not only did they earn their living there, they received training, housing assistance and were members of the sports and social clubs affiliated to the yard' (Spits, 'Other Side', 11). Housing included the Tuindorp Oostzaan, 'literally under the smoke of the NDSM' (Van der Sluis interview, 2021), a working-class neighbourhood built to house growing numbers of workers of the NDSM in 1919, as well as later the Turkendorp mentioned above. Education was organised through the BEMETEL foundation, not at craft school but actually on the site in the coppersmith shop (NDSM-Werfmuseum, 'Educatie'). Social clubs affiliated with the yard included a choir (lyrics to 'O shipbuilding yard below), the NSM sextet, and local orchestra (Harmoniecorps Tuindorp), which the NDSM supported financially. Sports events were also held at the nearby Volewijckers site (NDSM-Werfmuseum, NSM). The yard also had its own dentist (Van der Sluis, Interview) and local newspaper the 'werfbode' (NDSM-Werfmuseum, 'Werfbode'). Each contributes to a specific sense of place that defines locality. When the NDSM gradually shut down, the displaced workers still defined by this locality, who had thought it impossible that 'Amsterdam without shipbuilding could exist', formed an association for jobless shipbuilders, the Belangenvereniging Baanloze Scheepsbouwers (BBS) (OnsAmsterdam links below), which 'made utilities and tools for developing countries' (Spits, 17). The NDSM, with its worldwide successful shipbuilding exports, has always interacted with international actors, but with locality at the heart of what it produces. Now, with organisations like Greenpeace and MTV on the site, what's produced is much more globalised and interconnected.

What does this add to our understanding of the site?

The engendering of a distinct local identity seems an important part of the working-class members being able to see themselves collectively which helps make inroads into political action. Having one's sense of identity and collective consciousness validated via educational, media outlets, and cultural institutions, makes it easier for working-class people to 'make claims for a parity in policy negotiations over the distribution of such material things as access to education, jobs, land, housing, welfare and so forth' (Smith, 131), (Fraser, 2000). Replacing the local element - of identification not only through these institutions, but also with labour and working conditions - with a more globalised focus means that community-making efforts may not be aligned with issues of class and labour, situated in a specific place (see also Odell, 2019). See Van der Sluis quotes below for examples of how this can affect the (former) shipbuilding community.

RVDS interview: some key quotes:

'The working-class neighborhoods are gone, the population is more inward-looking , surrounded by all the luxury, too much to do and too little time. Then there is no more time for neighborhood activities , men no longer know or do not want to know their own neighbors.'

'Who I did know were my grandfathers, father, brother, uncles, cousins and neighbors who worked at the NDSM'

'Everyone helped each other, the key was under the doormat or the trash can'

'Community was generally [good] in North but differed by district, each with its own identity.'

'industrial districts were created that were populated by workers, with low wages and often, temporarily or not, without work. Clustered societies, working-class neighborhoods.'

'There were strict dividing lines between gender, function and/or status at the site'

'The sheds, workshops, a pier, crane track and ramps. That's it. What has been added is high-rise buildings, new buildings, very expensive apartments, the wet dreams of various architects realized in stone And the end is not yet in sight. This is the result of the arrogance madness of the city of Amsterdam. No more smelly and dirty industry, a Manhattan on the IJ is the utopian wish of the city council.'

Statement from Ans Barning, secretary of NDSM-Herleeft about local identity:

"About life on the yard I can tell you a little bit about my experience during the time I was working there. Life in the office (I was one of the members of the management) was different from the life of the workers on the yard, but there was an atmosphere of togetherness because everyone was working on the same project during the construction of the mammoth tankers. There was also a big cap [sic - gap] between office/management personnel and the workers on the yard as there was a strong hierarchy on the site. In difficult times workers fought together for higher wages, for keeping their jobs or to keep the NDSM open.

It was a male community and few women worked on the site. Most of the women worked in an office just outside the entrance of the yard in an 8-storey building, which still exists and stands beside the Curve (the building in the shape of a chimney and all made of glass). There was also a lot of humor."

References/sources/evidence:

Fraser, Nancy, 'Rethinking Recognition', *New Left Review*, vol. 3, (2000), 107-120.

Odell, Jenny, *How to Do Nothing: Resisting the Attention Economy*, (Brooklyn: Melville House, 2019).

Smith, Laurajane, 'Industrial Heritage and the Remaking of Class Identity: Are We All Middle Class Now?', *Constructing Industrial Pasts: Heritage, Historical Culture and Identity in Regions Undergoing Structural Economic Transformation*, ed. Stefan Berger, (New York: Berghahn Books, 2020), 128-145

<http://www.ndsm-werfmuseum.nl/educatie> - NDSM Educational pathways

<https://www.ndsm-werfmuseum.nl/de-werfbode> - Newspaper Werfbode

https://www.buitenbeeldinbeeld.nl/Amsterdam_N/ADM.htm - fusion with ADM in 1978 - Attempts at restarting, or restructuring the NDSM (e.g also the changing of the NDSM into the new NSM in 1981) are symbolic of the transition from local concerns to a globalised world

The Shipbuilding Yard song - one of the NSM choirs which performed at official events such as the Golden jubilee of the NSM:

*O dear spot of ground
where this ship once stood
O shipbuilding yard!
Where the song of labor sounded
By the heavy roar of tools
It is so horribly quiet now
O shipbuilding yard*

<http://www.ndsm-werfmuseum.nl/de-werven/nsm-noord> - search 'jubilee' (nb: discussion of the sports events is also in this section)

<https://harmoniecorpstuindorp.nl/vereniging/geschiedenis/1940-1950/> - Harmoniecorps Tuindorp - successful tuindorp choir and musical project

<https://amsterdamnoord.com/herinneringen-aan-tuindorp-oostzaan/> - 'memories of tuindorp oostzaan' - article about cultural identity of tuindorp oostzaan, including football, music, and cinema

<https://amsterdamnoord.com/tuindorp-oostzaan-een-bijzondere-geschiedenis/> - 23 part series of articles about tuindorp oostzaan! specific sections on ndsm, ships, shipworkers, and much more

<https://amsterdamnoord.com/boek-herinneringen-aan-een-bijzonder-dorp/> - above link collated in book 'memories of a special village'

<https://www.geschiedenis-van-amsterdam-noord.nl/vrouwen-in-de-scheepsbouw/> - women in the shipyard

<https://www.schoolbank.nl/school/ndsm-bedrijfschool> - BEMETEL shipbuilding schools 'memories'

<https://onsamsterdam.nl/de-baanderij-oud-scheepsbouwers-praten-na> - article about the BBS organisation - 'the smell of a ship!'

<https://www.transfirm.nl/nl/organisatie/40534757-belangenvereniging-baanloze-scheepsbouwers-b.b.s.> - BBS registration information

<https://onsamsterdam.nl/culturomslag-op-noordelijke-ij-oever> - on the changes in amsterdam noord, reflecting the process of deindustrialisation

<https://arcam.nl/architectuur-gids/de-baanderij/> - brief architectural analysis of former BBS building adaptation

<https://www.bibliotheek.nl/catalogus/titel.239975952.html/een-stukje-werf-gered/> - Ab Harrewijn - *Saved a piece of the yard: memories of the closure of the ADM and N(D)SM shipyards and of 10 years of BAANderij and BBS (Belangenvereniging Baanloze Scheepsbouwers)*, 2002

<https://www.historischarchief-toz.nl/> - archive about tuindorp oostzaan and the heritage identity of the area

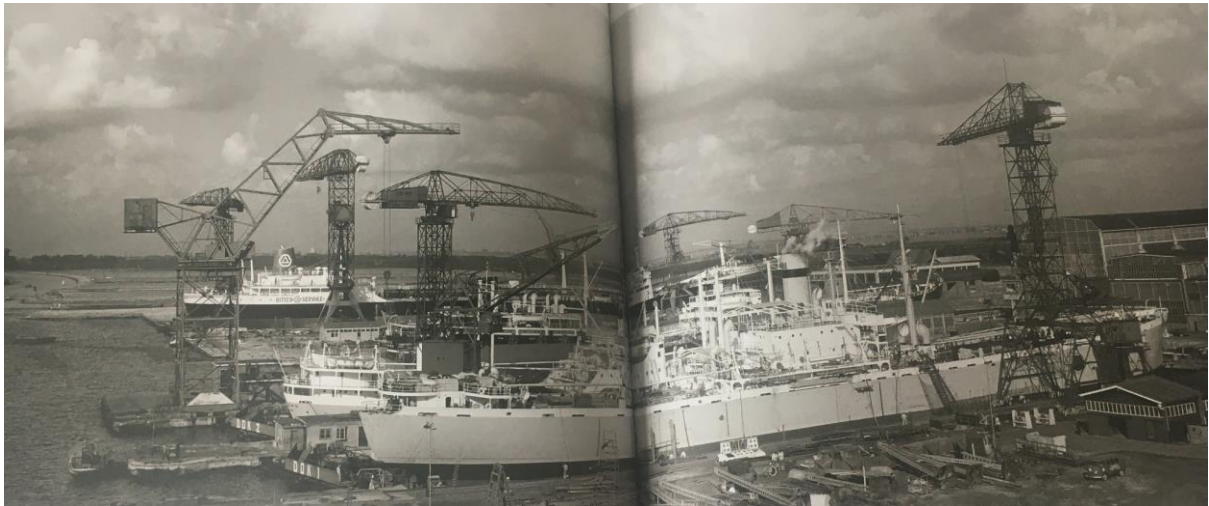
<https://www.parool.nl/nieuws/toen-scheepsbouwers-de-ndsm-verlieten-namen-kunstenaars-het-over~b0e7826d/> - article about artist Helene Min finding the archive material of ship designs in 1992 and making them part of the artistic practice of the new ndsm - in doing so Min merged the two significant eras of identity of the NDSM

https://www.youtube.com/watch?v=Kp2r-8u_mx8 - on the tuindorp oostzaan flooding - a significant event in its history

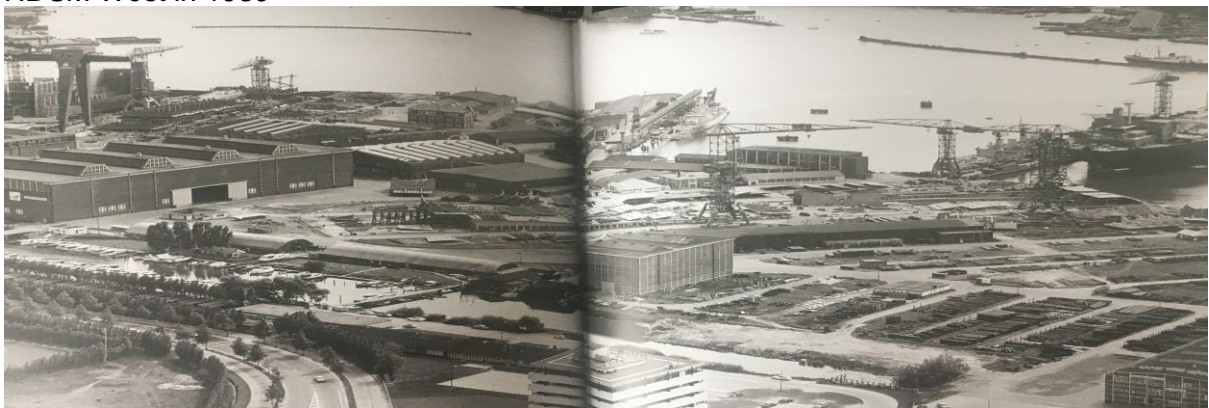
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Practices and Tools

Themes: (Hard) work, practice, place, material, iconicity



NDSM West in 1959



The NDSM in 1968



The blue gantry crane in 1976



Steel workshop in Damen shipyard constructing new crane base 2017





Welder constructing lifting lug in crane for crane-foundation

Working with ships often means working with metal, both in terms of materials and tools. Unlike smaller shipyards, large shipyards like the NDSM could also integrate suppliers of parts into their shipyards, meaning they didn't have to rely on imports for steelworks, boilers, machines, engines, welding equipment and so on. This allowed the NSM/NDSM to be one of the more innovative shipbuilding/repairing enterprises during the transition to steel ships at the turn of the 20th century, benefitting in particular from the invention of electric welding after world war II, making an all-welded cargo vessel in 1948. Dutch Company Werkspoor, associated with the NSM, also led the way for diesel engines for large ships. (Davids, 'Innovations', 219-222). The labour associated with working with metals and chemicals meant that you could smell 'fluid steel, welding fumes, paint, red lead, exhaust fumes, wet wood, heavy shag, sweat... rusty and bare steel, asbestos, grease and oil' on the site (Van der Sluis, interview, 2021).

When looking at photo collections of the NDSM, a huge number of photographs prominently feature the many cranes that characterise the NDSM skyline, of which in 1971 there were 300 indoors and out (NDSM-Werfmuseum, 'NDSM'). It is notable that today on the NDSM-plein there are only two (or, one and a half) cranes remaining. One is the Farrander hotel, a repackaged and repurposed luxury hotel, while the other the base of crane 7, all the remains after the top was blown down in a storm. Another crane lost in a storm was the iconic blue Gantry crane, which fell in 1990, and was discovered to be only insured for 2.5 million guilders, from a value of 16 million guilders (Kok, 'Second Life', 2018). The cranes were surely one of the most iconic aspects of the site throughout its entire life cycle, as shown in the pictures above, and the absence of the cranes (or remuneration for them) on site reflects the deep loss of the workers who had made their lives around their operations.

What does this add to our understanding of the site?

One of the metal-working organisations associated with the NDSM still operates today: Horstman Metaalwerking BV, showing that some of the craftsmanship of the industrial past remains in the present (see link below). New shipbuilding even occurs in the Damen shipyards, specifically within the steel workshop Niron Staal Amsterdam, as well as new cranes (see image above). Likewise, artists in the studios in the shipbuilding hall today work with materials similar to those used by elders and nail-boys in the past. The question of aesthetics must be considered however, when one of the most iconic aesthetic features of the old yard and all of the labour associated with it - cranes - is absent but for either unmarked evidence of industrial decline (the foot of crane 7) or a repurposed private venture

that benefits from the industrial aesthetic (Farrander hotel). This can result in the appearance of industrial heritage being present without any of the complexities of labour and craft that defined the lives of those who worked there.

References/sources/evidence:

Images: *NDSM: Toen & Nu/Past & Present*, eds. Elisabeth Spits, Bas Kok, Wouter Botman, (Amsterdam: Uitgeverij Boekschap, 2018)

Bas Kok, 'The Second Life of the NDSM', *NDSM: Toen & Nu/Past & Present*, eds. Elisabeth Spits, Bas Kok, Wouter Botman, (Amsterdam: Uitgeverij Boekschap, 2018), 155-161.

<https://www.ndsm-werfmuseum.nl/de-werven/ndsm> - search 'Kranen' - 8/12 entry

<https://www.kranenprojekt.nl/Resources/Kranendag%202018%20compr%2063p.pdf>

Kranendag 2018 - trip around port of Rotterdam exploring and learning about the cranes and their history

https://www.dbnl.org/tekst/lint011tech06_01/lint011tech06_01_0019.php - . 'Part 6. City, Construction, Industrial Production' *Technology in the Netherlands in the twentieth century*, (2003) - AAA de la Bruhèze , HW Lintsen , Arie Rip , JW Schot - useful history of the economic changes that led to changes in the dutch shipbuilding industry, as well as specific developments in dutch shipbuilding techniques which helped make them one of the strongest shipbuilding industries - p304 - note also: **'The ship changed in the period 1900-1940 mainly under the influence of three innovations: the use of steel, the introduction of new propulsion techniques and research into the design. Each of these innovations proceeded in a different way.'** - see p343 for more, on engine innovations and material usage

the publication also has a strong bibliography with many (Dutch) texts with technical histories of dutch shipbuilding etc, two of which are below in the following two texts:

<https://www.bibliotheek.nl/catalogus/titel.110685555.html> - Cornelis de Voogd *De neergang van de scheepsbouw en andere industriële bedrijfstakken / The decline of shipbuilding and other industrial sectors* 1993

https://www.forgottenbooks.com/fr/download/PracticalShipbuilding_10483371.pdf

- practical shipbuilding - Deel A: *A manual for the construction of seagoing merchant ships and war-ships* (Haarlem 1961, [2e druk]) 28-29.

<https://www.parool.nl/nieuws/stadsgezichten-kraanspoor~b86f47ec/> - short piece on history of the kraanspoor, former crane track

<http://www.horstman-metaal.nl/over-ons.html> - Horstman Metaalwerking, a still-operational metalworker in the ndsm area

<http://www.industriespoor.nl/NDSM.htm> - website detailing role of industrial railways, referencing, for example, staff magazine *De Werfbode*: 'In the Scheepsbouwloods (the large gray block under the Dwarskanaal on the map below), parts of a ship were built using techniques such as sawing, bending, drilling and riveting from steel plates and profiles. The task of the industrial railway (black dotted lines) was mainly the transport of these parts to one of the slipways I, II, III or IV. There, one of the cranes (indicated by brown blocks) placed the new part in the ship under construction. The range of these cranes can be seen on a beautifully colored map from 1930 [3] and it appears that the tracks did indeed come within the range of the cranes.'

<https://docplayer.nl/107725136-Scheepsbouw-maatschappij-nederlandsche-staal-industrie-rotterdam-ijzerbouw-haarlemsche-n-ie-u-w-b-o-u-w-en-h-erstelin-g-en-passagiers-en.html> - on cranes and ships in NL - (not a documentary despite the website name)

<https://docplayer.nl/14223172-70-jaar-ihc-merwede-joke-kortweg-2013-joke-kortweg.html> - publication by maritime historian joke kortweg about different industrial sectors including shipping (specifically dredging) industry

<https://www.bol.com/nl/nl/p/nederlandse-scheepsbouw/9200000040986863/> - joke kortweg also published this publication about dutch shipbuilding but i cannot find a copy of it online

<https://www.oecd.org/sti/ind/peer-review-netherlands-shipbuilding-industry.pdf> - peer review of the netherlands shipbuilding industry today - see for example: 'Executive Summary' p5 - 'In the 1980s, the Dutch shipbuilding industry started to focus on high-tech, specialised vessels. Large Dutch shipbuilders such as Damen and Royal IHC have become multinational companies. At the same time, there are still a significant number of smaller dedicated shipbuilders, particularly in the northern Netherlands, where the focus is on the construction of short sea cargo vessels. The Netherlands has obtained a key position in the construction of dredgers, luxury superyachts and inland vessels.'

<https://www.government.nl/documents/reports/2015/07/07/the-dutch-maritime-strategy-2015-2025> - Govt document indicating the dutch maritime strategy from 2015-2025 - useful for seeing how the NDSM has largely disappeared from this conversation, apart from the damen shipyard. the question is - what happens to that knowledge of the craft of shipbuilding?

<https://www.amsterdam.nl/kunst-cultuur/monumenten/erfgoed-week/ndsm/> - 'Heritage of the Week - N(D)SM - an open air factory for ships' - this passage particularly relevant : 'From raw steel to ship hull: The construction of a ship follows a strict production process, consisting of the delivery and storage of the raw material, processing, assembly and launching, finishing and testing. All those steps are tied to a location on the construction site. Nowadays, standing at the head of the wide double slope not only offers an enormous view of the water and the city, but also of the wharf area around. And this clearly shows how the yard functioned: to the right of the enormous shipbuilding shed, the raw material was delivered and stored from the water. The steel was then shaped in the shipbuilding shed and later also in the adjacent welding shed. The welding shed was added after the Second World War, when the latest welding technique replaced the traditional riveting, and the manufacture of larger building parts (sections) began. The construction parts were transported to the slopes via rails, and after the Second World War also increasingly by trucks. In the area between the sheds and the slopes, remnants of these rails are still visible.'

<https://www.portofamsterdam.com/nl/ontdek/amsterdam-en-de-haven/wat-we-doen-voor-de-stad/er-een-hele-goede-boterham-te-verdiene-de-scheepsbouw> - on shipbuilding today at damen shipping

<https://vimeo.com/491768055> - short video about 100 years of damen shipping - essentially this is a pr exercise for the company and romanticises / simplifies the dynamics and hierarchies of shipbuilding/repairing work but does nonetheless touch on some interesting points including locality, craftsmanship, place, identity, and so on

<https://www.metaalnieuws.nl/ferrotopia-ode-aan-het-ijzer/> / <https://www.youtube.com/watch?v=jlfnoLPUH1Q> (video of the unveiling of) Ferrotopia artwork - 'Ode to Iron'

DIETRICH SOYEZ, 'Europeanizing Industrial Heritage in Europe: Addressing its Transboundary and Dark Sides' *Geographische Zeitschrift: European Heritage — In Europe and Beyond* (2009), 43-55 <https://www.jstor.org/stable/25758632>

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Agency of Pollutants and Ecology

Themes: Ecology, non-anthropocentrism, environmentalism, identity erasure, contestation



Phytoremediating plants in De Ceuvel

Note: the literature often here refers to De Ceuvel and the wider Buiksloterham area that the NDSM is a part of.

It is not only the ships, the steel, the workers, and the buildings on the NDSM which help form its history. The material by-products of industrial activity permeate the space, with the groundwater's saturation with heavy metals and carbon chains from the decades of industrial activity part of the reason that housing developments in the wider Buiksloterham area haven't always been possible. Toxic soil pollution is a problem in many of the areas bearing the impact of former shipbuilding activity, with this being one of the reasons that De Ceuvel, down the road the NDSM and with a similar shipbuilding past, was able to win the lease to the site from the municipality for ten years in 2014. In much the same way that pollutants and asbestos linger within the bodies of former workers (Van der Sluis, second interview, 2021), so too does the ecology of the site have its molecular makeup altered by industrial pollutants remaining in the ground since work has ceased. Asbestos for example is 'present throughout the entire area', (Hoogendoorn, 2016, 21), and the plants used by De Ceuvel to clean up the pollutants in the soil do so by taking on the chemicals and heavy metals into their molecular makeup ('Purifying Park De Ceuvel', 2017).

What does this add to our understanding of the site?

Of course these pollutants have a human origin, but nonetheless have agency as something affecting the history of the site, indicating human and natural history to be inextricably intertwined. This agency is indicated by the fact that pollutants, like trash and a landfill, is not static but 'generates lively streams of chemicals' (Bennett, *Vibrant Matter*, 2010, vii). This means that the non-human by-products of industrial activity can be considered, 'as a form of cultural heritage, even if this legacy primarily carries negative traits and in fact represents a burdensome heritage' (Buser, *Rubbish Theory*, 2016). Similarly, the 'work' being done by plants and ecology to clean the soil's toxicity adds a further dimension to the idea of the shipyards as a space associated with industrial work. This can be important in two specific ways: the introduction of non-human concepts of scale and time, via the ecological permanence of chemical effluents, and the emotion that might be felt in response to this long-term environmental impact. These add further narrative complexities to the way that the shipyards can be understood as heritage places, by including the non-human as agents involved within the materiality of the site, thereby complicating the idea of what heritage *is*. At the same time, the movement to improve the environmental situation at the NDSM and its surroundings is also complicated by issues of gentrification and former workers feeling like

they are being targeted by the 'green mafia' (Van der Sluis, interview), (NDSM-Werfmuseum, 'NDSM'), making this an area of contestation in human terms as well.

References/sources/evidence:

Jane Bennett, *Vibrant Matter: A Political Ecology of Things*, (Duke University Press Durham and London 2010)

Jurgen Hoogendoorn, 'Circular Cities: Designing Post-Industrial Amsterdam - the case of Buiksloterham', *DELVA Landscape Architects*, (2016), 27.

Marcos Buser, *Rubbish Theory: The Heritage of Toxic Waste*, (Amsterdam: Reinwardt Academy, 2016).

Ruud Van der Sluis, second email interview with Harry Reddick, personal interview, De Blauwdruk, NDSM, Amsterdam, 23rd March 2021

<https://archello.com/nl/project/de-ceuvel> 'Purifying Park De Ceuvel', *DELVA Landscape architects*, 16th January 2017, accessed 7th July 2021

Unknown author, 'Purifying Park De Ceuvel', *DELVA Landscape Architects*, (2012-2014), accessed 26th March 2021.

<https://www.amsterdam.nl/projecten/buiksloterham/bodem-buiksloterham/verontreiniging-sanering-buiksloterhamse/> - Pollution and remediation of the Buiksloterham soil

Gladek, Eva, Herder, Albert, Theus, Pieter, and Van Odijk, Sanderine, 'Transitioning Amsterdam to a Circular City: Circular Buiksloterham: Vision & Ambition', *DELVA Landscape Architects*, (2014), 10-21.

Harry Reddick, 'Ghosts in the Shipyard: Hauntology, Ecology and Different Stories in the NDSM and De Ceuvel', unpublished masters thesis, available at request!

Notable ships:

A full list of the names, sizes, year of construction, capacity, and company of all of the ships built and repaired at the NSM, NDM, and NDSM, can be found on pages 138-151 of *NDSM: Toen & Nu/Past & Present*.

Het Schip de Oranje - The Orange

:<https://www.hetscheepvaartmuseum.com/collection/articles/1477/article-highest-naval-death-toll-all-time-1945> - Former hospital ship, mirrored by German hospital ship

see also: <https://www.stichting-ndsm-herleeft.nl/nieuws-uit-2018> - Exhibition from NDSM-Herleeft on the Oranje

<https://www.iamsterdam.com/en/amsterdam-qr/north/ndsm-werf> - more information on the Oranje

<https://onsamsterdam.nl/de-m-s-oslofjord-gaat-te-water> - De Oslofjord - the first significant ship built after the destruction of the yard in WW2 - the largest passenger ship ever built (at the time) for a foreign client

<https://www.ndsm.nl/en/location/het-veronicaschip/> - Het veronicaschip was a pirate radio broadcaster which now is used as a venue/restaurant

Additional links:

https://issuu.com/artcityndsm/docs/ndsm_open_kunstenaarskrant_2019-2020_nederlands - eva klee - short wandering piece p26 (also in dutch earlier on)

https://www.dbnl.org/tekst/lint011gesc04_01/lint011gesc04_01_0003.php - History of technology in the Netherlands. The emergence of a modern society 1800-1890. Part IV(1993) - HW Lintsen - emphasis on history of shipbuilding industry

<https://www.maritiemdigitaal.nl/index.cfm?event=search.getsimplesearch&database=ChoiceMardig&needimages=true&searchterm=ndsm&allfields=&title=&keyword=&creator=&collecti on=&shipname=&invno=&museum=&startrow=101> - huge archive of images related to NDSM - lots of ships but also lots of things like the cantine and logos over time

<https://www.trouw.nl/nieuws/drama-van-sluiting-werf-nog-steeds-niet-verwerkt~ba930b5f/?referrer=https%3A%2F%2Fwww.google.com%2F> - article from 1992 about closure of the wharf and a documentary about its closure

https://assets.amsterdam.nl/publish/pages/463701/noordelijke_ij-oever.pdf - on buiksloterham/ndsm/amsterdam noord -

[Mark Straver Dutch shipbuilding in the postwar period](#) - short summary of the economic history of the post-war shipbuilding industry in the netherlands, which hit hardest at places like the NDSM

https://www.dbnl.org/tekst/sten009monu11_01/sten009monu11_01_0018.php - Monumenten in Nederland. Noord-Holland(2006)–Saskia van Ginkel-Meester, Chris Kolman, Ronald Rommes, Elisabeth Stades-Vischer, Ronald Stenvert - architectural and social history of the wider buiksloterham area in which the NDSM is situated, including information about the offices of Shell, Dutch multinational oil and gas company, in the section entitled ;Amsterdam-Buiksloot'. Also includes brief history of further history of Oostzaan area which became main commuter village for workers of NDSM (in section 'Oostzaan')

https://www.zaans-industrieel-erfgoed.nl/index.html?pages_4/reportage_ndsm_geschiedenis.html&main_frame - further history of the ndsm - note for example the detail that if this was a floating dock it would have probably been sold abroad - its permanence in the landscape is part of the heritage of the site and a vital part of its ongoing existence / note also the methodology of the NDSM in creating mammoth tankers - creating each half individually and then combining

<https://levenopndsm.nl/wandeling> - walking tour with 9 different stories about the NDSM - in dutch

<https://izi.travel/en/e6cb-ndsm-collectie/nl#d67c2c90-5ce8-47bf-9631-ffc6fd57729a> - audio tour with 14 different stories about the ndsm (dutch)

<https://www.alblasserdam.net/column/2016-12-21/het-is-alsof-de-amsterdamse-werf-van-de-alblasserdamse-gebroeders-von-lindern-nooit-heeft-bestaan> - blog post about discovered plans to expand n(d)sm

<https://www.ndsm.nl/en/story/lezing-hans-goedkoop-geschiedenis-ndsm-werf/> - about Daan Goedkoop, one of the most significant figures in the history of the NSM and subsequent NDSM

<https://onsamsterdam.nl/ondernemer-daan-goedkoop-iii> - more on daan goedkoop

<https://www.at5.nl/artikelen/155077/zeventig-jaar-ndsm-werf-dit-was-d-scheepswerf> - as above - one of Goedkoop's descendents on the current shipyard - note quote: 'Hans Goedkoop envisions a new life for the NDSM wharf: 'Ideally, new companies will be created that are large and stable enough to give this site new glory. And my great-grandfather, Daan Goedkoop II, who started all this, sits on his cloud purring with satisfaction.'

<https://archieff.amsterdam/inventarissen/details/30300/keywords/nederlandsche%20dok%20scheepsbouw%20maatschappij%20withscans/1/start/0/limit/10/flimit/5> - various archive materials for ndsm, including documentation of specifications for the construction of steel screw steamer 'ary scheffer' 1904

<https://www.lvbhb.nl/leden-van-de-werkgroep-historische-scheepsbouw/> - work group preserving the practice of historical shipbuilding - appears to still be active - not specifically related to NDSM, rather is related to the craft of shipbuilding which was practised by the NDSM

https://www.industrieel-erfgoed.nl/sites/default/files/bijlagen/bestanden/pie_rapport_38_scheepsbouw.pdf - report on shipbuilding in the netherlands by industrial heritage organisation NL - discusses transition to steam engines and iron construction, boom years, social relations, technology of production - in Dutch

<http://www.evadeklerk.com/en/ndsm-werf/> - eva de klerk's website discussion on NDSM

<https://iisg.amsterdam/nl/detail?id=https%3A%2F%2Fiisg.amsterdam%2Fid%2Fitem%2F850868> - 1964 student housing design - notable in that the use of the site for housing students was in the works back when the ndsm was still in operation, but the student housing now in situ at the ndsm is one of the incongruous elements with the site's history

<https://search.iisg.amsterdam/Record/1394782> - Weekly magazine Over 't IJ. Family magazine for the residents of Buiksloot, Nieuwendam, Oostzaan, Landsmeer, Zaandam, Koog a/d Zaan, Wormerveer, Westzaan - requires requesting from archive

<https://docplayer.nl/130755097-Archieff-van-de-nederlandse-doken-scheepsbouw-maatschappij.html> - archive material / directory for NDSM

<https://www.rdm-archieff.nl/> - rotterdam droogdok maatschappij archive

<https://www.geschiedenis-van-amsterdam-noord.nl/adm/> - brief history of adjacent ADM (Amsterdam droogdok maatschappij / Amsterdam drydock company)

Publications made by or about the NDSM:

<https://www.ndsm-werfmuseum.nl/diverse-uitgaven> - list including:

The History and Work of the NL Shipbuilding company - J. Hamme Jr. - overview from 1894-1931 /

Klink Loz - FWK de Klerk - Shipbuilding design and techniques /

Betriebsochrift - Nazi occupiers manual - Operation Manual for cutting, welding and hot firing with gas 1938 /

NL Dock and Shipbuilding Company - English edition - Company brochure 1951 / Annual reports /

A hundred times preserved, NDSM, 1946-1961, J. Masterbroek - celebrating launch of the 100th ship, 1961 /

De scheepsbouw van Vandaag en morgen - report from Dutch Shipbuilding Committee, 1966 /

The Motor Ship, English edition - special about nautical industry in NL and NDSM and it's 'jumboizing', 1968 /

Modern Shipbuilding in the Heart of Europe - Company edition New NSM brochure, 1982 / Vergane Bootglorie Gerleefd/Lost boat glory revived, Hans Boomsma, JB Mange, Highlights from Dutch Shipping Industry

Niels Wisman, De 25 dagen van Amsterdam : 25 beslissende momenten : de geschiedenis van Amsterdam in 25 delen / Dl. 24, 21 juni 1999

<https://www.delpher.nl/nl/boeken/view?identificatie=MMKB18:000011000:00007&query=nederlandsche+dok+scheepsbouw+maatschappij&coll=boeken&rowid=1> - 30 Year anniversary of NSM

<https://issuu.com/artcityndsm> - *NDSM Open* - annual publication from the NDSM open team who operate the NDSM today. 2019-2020 edition is latest - and is particularly useful for illuminating some of the tensions that exist within the NDSM as it exists in the tensions between survival and gentrification

<https://www.theobakker.net/pdf/NSM.pdf> - History of the NSM written, again, by Ruud van der Sluis

Documentaries/media:

New NDSM:

There are less examples of the transition period between the yard's closure and its reopening, or the process of artist communities settling in the area in order to kickstart its transition. There are however videos about the artists currently operating in the yard:

<https://www.youtube.com/watch?v=iGEenPLQpic>

<https://www.youtube.com/watch?v=0ZhBlkJXS5w> short video about children's workshop in ndsm from 2008 - an interesting point of transition in the site's overall trajectory

<https://www.youtube.com/watch?v=rIFrLuODucA> - eva de klerk comprehensively discussing the development of the ndsm - talking about origins, *stad als casco* (also discussed in Labuhn text mentioned previously), gentrification and questions of ownership,

It's notable that a lot of videos about the NDSM on youtube are about its modern-day conception - lots of walking-tours and guides to the hip and cultural neighbourhood. See for example: <https://www.youtube.com/watch?v=GRmsEUYNUQ8> and <https://www.youtube.com/watch?v=tIFs-MeE7K8>

This video addresses something of the tensions of the artists and housing developments in the area <https://www.youtube.com/watch?v=W5c2W8So4-o>

<https://vimeo.com/226215720> - Ship of fools documentary - long live the ndsm

Old N(D)SM:

<https://www.youtube.com/watch?v=dtGoaBPdg-A&t=3s> - NDSM-werf Amsterdam-Noord: de geschiedenis, met Oostenburg, Amsterdamse haven - oude filmbeelden - old film showing the history of the ndsm with useful stuff like shipbuilding methods

<https://www.geschiedenis-van-amsterdam-noord.nl/de-ndsm-werf-honderd-schepen-in-het-ij/> - history of amsterdam north - short documentary - hundred ships in the IJ

<https://www.ndsm.nl/en/story/artikel-geschiedenis-ndsm-loods/> - Documentary re: 1945-1961 NDSM - Post-war recovery etc

<https://www.youtube.com/watch?v=va2DoDi6aeQ&t=14s> documentary about the former IJ kantine, former BBS building

<https://www.youtube.com/watch?v=Ovgs1f-FwDo> - not explicitly about the nsm, but 1914 documentary about the shipyards of amsterdam - including stuff about old nsm site in east amsterdam

<https://www.youtube.com/watch?v=GHOmwytyf-g> - Interviews with dock workers from Rotterdam, Amsterdam and Vlissingen about safe and unsafe working conditions when working in the port. Filmed and edited in 1993

https://lib.uva.nl/discovery/fulldisplay?vid=31UKB_UAM1_INST:UVA&docid=alma990033596090205131 - Van scheepswerf tot filmstudio : een onderzoek naar de transformatie van het NDSM-terrein in Amsterdam-Noord 1985-2009

<https://www.ndsm.nl/event/de-werf-in-beweging/> - play about the NDSM featuring former workers

Key questions I've tried to explore here:

- How was a sense of collectivity engendered in the history of the NDSM?
- What type of collectivities were present, and how did they intersect?
- What kind of iconic objects/structures exemplified these types of collectivity, and what is their current status in the NDSM?
- How can we understand the NDSM in terms of class, and which threads contribute to that?
- What is the political implication of such generated collectivity? How should this affect how we think about what the site is today?
- What are the material practices and products (intentional or unintentional) that the NDSM is best characterised by?