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### INTRODUCTION

#### QUESTION

This document concerns an analysis and evaluation of the cultural value of architectural complex of the Katoenveem at the Keilestraat 39 in Rotterdam. In order to redevelop the area in the future this research is required to get a good understanding of the cultural values of the Katoenveem. This will give an insight in the aspects of building and its surroundings that need to be preserved, restored or redeveloped.

#### **METHODOLOGY**

- Create an cultural value assessment matrix specifically adapted to the Katoenveem, using the work of Alois Riegl¹ and Steward Brand².
- Use this matrix to determine the most important cultural value aspect of the Katoenveem before redevelopment.
- Reflect on the different cultural value findings of the matrix.
- Develop an articulate cultural value statement concerning the Katoenveem.

### CULTURAL VALUE MATRIX

ORIGIN AND ADAPTATION The horizontal axis of the matrix is derived from the framework of value of artefacts by the Austrian art historian Alois Riegl.¹ Riegl distinguished age value, historical value, intentional commemorative value, non-intended commemorative value, use value, newness value and art value. As an addition art or rarity value was suggested by the cultural value course. The vertical axis originates from the layering of the building as described by the American writer Brand Stewart.² Brand distinguished site, structure, skin, services, space plan and stuff as layers of a building. Additionally surroundings, surfaces and spirit of the place were suggested by the cultural

value course.

After due consideration, surroundings, site, skin, structure, space plan, services and stuff have been selected as aspects on the horizontal axis. The vertical axis was eventually composed of age value, historical value, use value, art value, rarity value and experience value (belevingswaarde). An explanation of the choices made in this process can be found on the next page.

<sup>&</sup>lt;sup>1</sup> Riegl, A. (1982). The Modern Cult of Monuments: Its Character and Its Origin. *Oppositions*, 25, 21-51.

<sup>&</sup>lt;sup>2</sup> Brand, S. (1995). How Buildings Learn: What Happens After They're Built. New York: Penguin Publishing Group.

The first adaptation that has been made is the removal of the intended and non-intended commemorative value on the horizontal axis. A functional building like the Katoenveem does not contain a lot of commemorative aspects. The aspects that still commemorate certain aspects have not be placed there with that intention. Therefore the commemorative values have been looked at from the viewpoint of other values that have been included in the matrix.

The second adaptation that has been made to the horizontal axis was the addition of 'belevingswaarde'. The psychological experience of the architectural complex is very striking and present when visiting the Katoen-

veem. Therefore this is an essential value, that needed to be added to the matrix.

On the vertical axis all the aspects suggested by Brand and the cultural value course have been included, except for the spirit of the place. The added 'beleving-swaarde' already concerns the spirit of the place and therefore an extra addition was redeemed unnecessary.

When looking at the final matrix on the page is becomes apparent that the column of newness value and the row of stuff have been left blank. A decision was made to leave them in the matrix nevertheless because sometimes and empty space can illustrated as

much as full space in the matrix. It illustrates that no new aspects can be found in the Katoenveem because everything deemed valuable in the complex is original. The fact that stuff is still included illustrates that fact that no stuff is left in the Katoenveem and that it was all removed over the course of history.

Finally a colour-based grading system has been selected to illustrate the hierarchy of the values and elements we have chosen:

Red illustrates the most valuable aspects, which should only be altered with very great consideration and argumentation or should perhaps not be touched at all. Yellow illustrates the aspects that hold value but can be adjusted in order to strengthen the values of the Katoenveem.

Green illustrates the elements that hold no significant value and can be altered in the redevelopment of the Katoenveem if deemed necessary.

- The next page shows the final cultural value matrix -

RIEGL BELEVINGS-RARITY HISTORICAL USE ART AGE WAARDE BRAND SURROUN-DING X X SETTING - Traces of train tracks - Loss of activity - Part of the harbour Longitudal pier
 Lots of industrial activity
 Industrial site 9/4Min \$ B5355) SITE - Old partitions of the outside wall still - Traces suggest a complex - Old pa - The two piers are old crane foundations, remain Traces of removed buildings - Strong harbour feel - The only cotton storage in the Nether-- Free space on either sides - Far view over the water wing traces of an old infrastructure The pier is still used similairly, using rucks instead of trains and boats. SKIN X and holes on skin and gallery's
- still present original texts on walls
and doors, which tell functionality and - dated appearance - weatherworn skin and clear signs of erosion and rust - Repetition in skin is key factor in historic and contemporary experience the Katoenveem - Skin is designed in order to - Deliberate lining and suggestio - Traces of steel decorative Kato enveem sign on roof/skylight of the building create maximum usibility for it's original function of hardstone decoration around windows as a reference to dwelling STRUCTURE X The dilatation between any two adjacent compartments is a special design for the inflammable goods, cotton. The north oriented skylights provide indirect unlight, which can avoid overheat of the cotto The abrasion on the free standing co-umns in the halls is the evidence of the tructure is very striking and present in the building and largely determines the peratiing years of the Katoenveem. xamples of Hennebique reinforced conete system used on a cotton warehouse SPACE Χ Χ PLAN The five separated compartments for cotton(upper drawing) are interconnected by the walkways and outdoor galleries for The five parellel compartments are placed Vith a little restoration, the huge, tall Vithout the piles of cotton bales that along the pier. The efficiency of waterway and railway transportation, and the storage of cotton was the primary reason of the space plan layout. used to occupied the space,each com-partment is a huge, cold, static space with major light source from above, making the space solemn and silent. space of each compartment has the poential to be used for many purposes, s as warehouse, art studio, sports fields, workers(lower drawing). hurch, etc. SURFACES X Χ INTERIOR - dated appearance - damages of use and cottonbale - sacred atmosphere through color and materialisation (like bright white paint and texture as in some weatherworn surfaces and clear signs of erosion and rust on walls, structures, doors and windows 1 **SERVICES** resent original equipment and systems Since present systems and equipment still have a potential of use, parts could be serving future programming of the building. Lightss by electricity and armatures, as the current sate of conveyor, lights, fans, pulley, and travellers suggests traces of past life, a process of existence since By the present original equipment and systems suggest traces of past live and The innovative firesystem along with wa terstorage and keeping it on pressure to All original equipment and systems such as the total plan of serving as cranes, conveyor, lights, fans, bridges, travellers, watertower, pipes, sprinkler, cart and pulley are reffering to the for its time advanced functionality of the building as cotton warehouse. xistence of a workers process, there is a safeguard against fire through sprinckles the systems are not continious anymore and the equipment is left behind in dust, rust and leakage. of the ginnel type, inventive for its period an improvement for the service of its functionality natural ventilation by fans through wind. chance and imagination of movements transport and carrying of stuff along the kept conveyor. STUFF X X X X X X X

illustration 1 - group produced cultural value matrix (own illustrations)

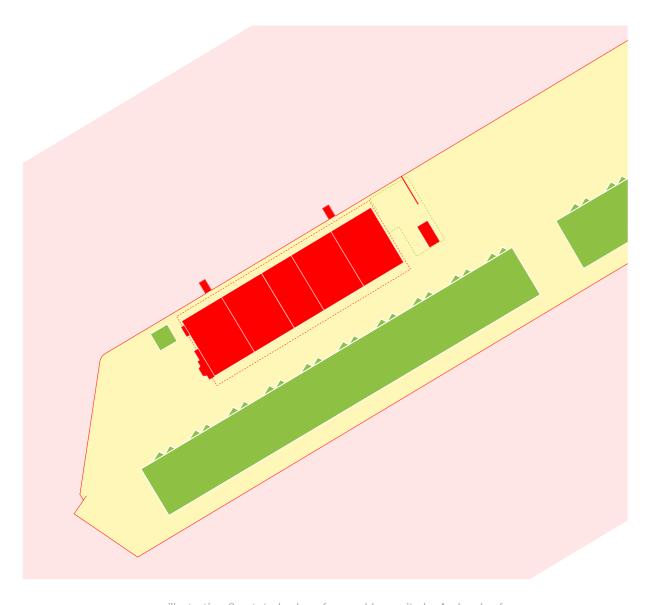


illustration 2 - stated value of ensemble on site by Audrey Loef (own illustration)

### PHYSICAL GRADING

#### SITE

High: The water and longitudinal shaped land are of high value because they refer to the historical setting of the harbour activity of the port of Rotterdam. The site is both part of- and surrounded by the harbour and therefore the complex in its remained original completeness is assigned a high value. The traces of intended functionality of Katoenveem warehouse are key in this decision.

Medium: The pier itself is of medium significance because it holds the value of the historical industrial harbour. There is an opportunity to adjust the current use similar to past due to the trucks of today's industrial energy of the site, in order to enhance the highly va-

lued elements of the site of the Katoenveem complex. Low: The structures that were added onto the site hold no value and can be adjusted to strengthen the present valued elements or to bring back the atmosphere or 'belevingswaarde', as they were not part of the original use and physical layout of Katoenveem (see illustration 2).

### SYSTEM OF ORIGINAL SERVICES

High: All remaining original services of the functional system of Katoenveem warehouse are of high value as the present equipment and systems display the innovative and advanced but simultaneously aged and historical use of the cotton trade in Rotterdam.

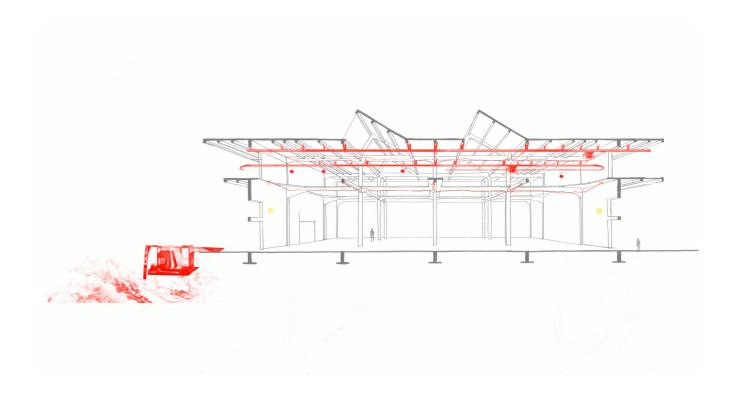


illustration 3 - stated value system of original services by Audrey Loef (own illustration)

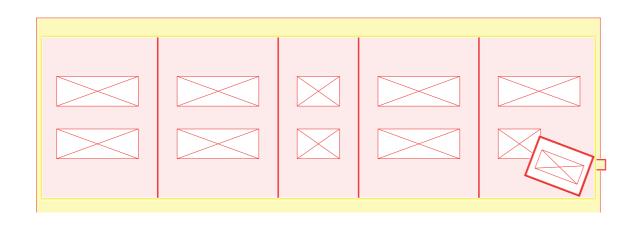
Medium: The ventilation fans are of medium value since they were not intended to be part of the original set up of functionality of the service system (see illustration 3).

#### BUILDING IN PLAN AND SECTION

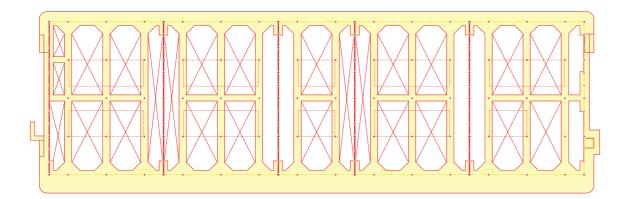
High: The building in its contemporary original completeness is assigned high value because of the traces of intended functionality of the Katoenveem warehouse. The composition, shape and openings of the facades, compartment walls and floors are of highest importance because they represent the original functionality of the Katoenveem warehouse by its set up of spaces and structure.

Medium: In order to preserve the remaining original completeness of the building of today the layers of skin and surfaces of the facades, balustrades and galleries are of medium value as they are in need of treatment to maintain the assigned high value of being part of the intended functionality of Katoenveem warehouse.

Low: The added structures, like the interior walls and the replaced window frames hold no value and can be adjusted to strengthen the present high valued elements or to bring back the atmosphere or 'belevingswaarde' as they were not part of the original use and physical layout of Katoenveem (see illustraion 4abc and 5abcd on the next page).









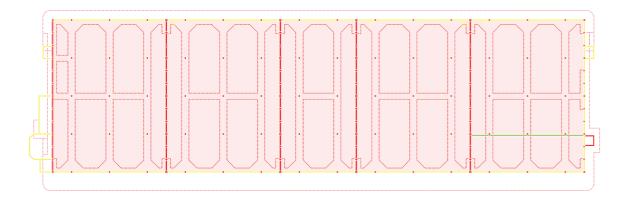








illustration 6 - katoenveem exterior south by Xihao Yi (own photograph)

illustration 7 - katoenveem structure by Audrey Loef (own photograph)

### CULTURAL VALUE STATEMENT

BUILDING DESCRIPTION Generally speaking, the original state (see illustration 6) and the functionality of the building complex are its primary features. The Katoenveem was built by the Dutch tradesmen of the New Maas in 1919 for the purpose of re-establishing the cotton trade after the WW1.3 Thanks to the cranes at the Lekhaven and the Keilehaven, the building complex had the ability to collect and store cotton bales from both sides of the pier that mainly arrived from England. Afterwards they would be redistributed to Germany and Belgium, either via ships from the harbours or via the railway at the south of the building.4 The building itself was specifically designed for the stor-

age of cotton, by architect JJ Kanters. The functionality can be understood through the space plan of five separate compartments for cotton. These compartments were interconnected via walkways for workers at the first floor level. The building was divided to prevent potential fires from spreading to the other compartments. Cotton is a highly flammable material and therefore this subdivision was deemed necessary. The openings of the building also follow its functionality. The doors on both floors open according to the direction of transport – to the ships in the north and to the trains in the south. The wired windows above eye-level and the north orientated skylights illustrate the preference

of indirect natural light. The natural light is brought in without overheating the cotton. The structure of the building is a monolithic reinforced concrete system that has been derived from the Hennebique construction system (see illustration 7). The architects understanding of the constructive materials resulted in slim profiling of the beams and columns, while the weight of the walkways, roof and conveyor system were distributed very well. Internal steel reinforcement is used to strengthen the structure.

Even though the building was an economical, industrial warehouse, it was equipped with advanced installations for its time. An automatic sprinkler system, elec-

trical lights, and a conveyor system to carry the cotton bales. The sprinkler system would assure the safety of the goods and the workers by diminishing the risk, the conveyor system carried the cotton bales through the building and beyond and the electrical lights would make sure working could continue even on darker days. This was remarkable for the time in which the Katoenveem was built.

 $<sup>^{\</sup>rm 3}$  Dam, H. H., van. (1919). The Cotton Warehouse of Katoenveem. *The Pioneer*, 3, p65.

<sup>&</sup>lt;sup>4</sup> Enderman, M. W., & Stenvert, R. (2005). *Bouwhistorische Verkenning Katoenveem Keilestraat 39 Rotterdam*. Utrecht: Bureau voor Bouwhistorie en Architectuurgeschiedenis, p7.

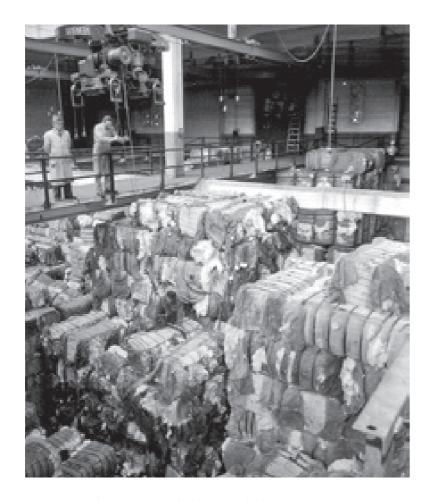


illustration 8 - old photograph katoenveem interior (Bouwhistorische Verkenning Katoenveem)<sup>5</sup>



illustration 9 - interior surfaces katoenveem by Audrey Loef (own photograph)

MOST SIGNIFICANT VALUES In this part of the cultural value statement the most significant values from the matrix will be discussed. The aspects have been rated highest will be reflected upon.

When considering age value, the highest rating has been attached to the services of the Katoenveem. Different parts of the old systems (conveyor, sprinkler and lighting) have stood the test of time. The building functioned as a functional machine in the past and only these surviving pieces of the system can provide in inside into the actual workings of the building. The way everything used to work is considered as one of the most significant aspects of the Katoenveem, there-

fore the traces that illustrate that fact are valued high. These traces and old photographs are the only remaining evidence of the true functionality of the building. The historical value of the Katoenveem is rated highest if the number of high value squares in the column are considered. The surrounding, site, space plan, surfaces and services have all been awarded a high rating status. The surroundings and the site derive the high historical value from the fact that the Katoenveem used to be part of a larger complex. The place in the harbour, the traces of the old complex and the old infrastructure all provide significant historical value to the place. The skin's maximum usability, due to strategic openings

and adaptation to the system of the building, provides high historical value as well. The structure has been designed in a 10050 by 10050 mm grid in order to maximize the usability in relation to the bales of cotton. Different bales of cotton - American and Egyptian cotton bales differ in size - could be placed within this grid and still leave room for the little carts to move through (see illustration 8). Therefore the structure has been assigned a high historical value. The space plan, designed with five parallel compartments placed along the pier, is historically significant as well. The space plan was designed in such a manner that the transportation of the cotton, via railway and boats, could be highly efficient.

Another aspect that received high historical value is the surfaces in the interior. The surfaces give an insight in the way the building was manufactured. The traces in the concrete (see illustration 9) show the historical formwork that was used to built the concrete walls. All these aspects together form a Katoenveem with high historical value.

In the use value column, the highest rating has been assigned to the structure and the space plan. The structure of the skylights has been designed with an orientation to

<sup>&</sup>lt;sup>5</sup> Enderman, M. W., & Stenvert, R. (2005). *Bouwhistorische Verkenning Katoenveem Keilestraat 39 Rotterdam*. Utrecht: Bureau voor Bouwhistorie en Architectuurgeschiedenis, p1.



illustation 10 - large, tall interior spaces by Audrey Loef (own photograph)

illustration 11 - harbour view Katoenveem by Audrey Loef (own photograph)

the north because the cotton warehouse required indirect daylight. In the redevelopment this indirect daylight can be of high value if an appropriate function is assigned to the Katoenveem. The historic space plan with its large open spaces was designed specifically in accordance with the functionality of the building. With a little restoration, these large, tall spaces of the compartments have the potential to be used for many purposes (see illustration 10). For example as a warehouse, an art studio, a sports hall, and a church, as well as many others. The next column of the matrix that contains aspects of high value is rarity. The site and the space plan have been given a high value rating. The Katoenveem is the

only cotton storage in the Netherlands. Being the only one constitutes a high value rarity rating for the site. Even when looking outside of the country, not many cotton warehouses that have stood the test of time can be found. The space plan is designed in such a specific manner for the purpose of the building that a high value rating in this aspect seems quite evident. The typology of the space plan with its separation of floors and compartments is so characteristic for this particular building that a high value is given here as well.

The last column containing squares with a high value is the one that describes the cultural value of the 'belevingswaarde' in the Katoenveem. The site, skin, structure and services have all been assigned a high value. The site provides a incredible view of the harbour, large open spaces on either side of the building and strong feel of the harbour (see illustration 11). This is a significant aspect of the experience when visiting the Katoenveem therefore the value is high. The repetition in the skin of the surface is also an aspect that influence the 'belevingswaarde' heavily (see illustration 6). The structure (see illustration 10) is also a striking part of the experience of the Katoenveem building. It largely determines the current feel of the interior. The final aspect of the matrix that has been rated with a high value are the services in the column 'belevingswaarde'.

The presence of original equipment and systems suggest traces of a past life and the existence of the workers' process. With a little imagination the process of the Katoenveem can be derived from these aspects.

Further information on the cultural value of the Katoenveem can be found in the group report of the building.



illustration 12 - Original cover of The Pioneer journal of march 1919 (Stadsarchief Rotterdam)

### **STORIES**

As stated before, the uniqueness of the building, the good state of preservation, the original services and the traces of the history on the complex, make the Katoenveem a relevant historic and technical monument. However, to state that these are the only valuable elements in the building would be short selling its history.

The impact of a building, on the lives of its workforce and the influence on the trade, is hardly noted. That is why this chapter has been added; to give insight into the daily operations of the Katoenveem during its peak. The main source for these stories is the original newspaper found in the archives of the city of Rotterdam,

'The Pioneer' (March, 1919). This document has an article about the Katoenveem and it gives good insight on how revolutionary the building was, and the difficult times in which it was built. WWII destroyed much of Rotterdam but this site was spared, but WWI also had a profound influence on the storage building.

Despite the fact that the Netherlands remained neutral during this war, it had a major impact on the economic stability in the country. In the text it is stated that many business ventures failed at the time and that 'new sources of welfare' had to be found (The Pioneer, 1919, p.65).



illustration 13 - Katoenveem interior image (1952) (Dijk, F.H. van, image owned by Stadsarchief Rotterdam)

One of these sources was to revive the cotton trade, which was once a big part of the Rotterdam's harbour activity, but over time had diminished due to competition with Germany. In an effort to overcome this, a group of investors started to research the possibilities in 1915.

They found that it would be viable to reintroduce the cotton trade to the ports of Rotterdam but that would require new warehouses with the most advance technologies in order to safeguard the quality of the product. Furthermore, the storage and transshipment could no longer be kept separate, but should be combined

in one location for optimisation and safety due to the danger of spontaneous combustion.

This is why six 'Veems' or warehouse companies joined forces in order to create one warehouse that would be built specific for the cotton trade. Of this group, the Blauwhoedenveem was the largest, and it still exists today.

Thanks to these companies and their financial support, bankers and others became interested in the enterprise which allowed for more shares to be handed out, once the original sum was not sufficient.

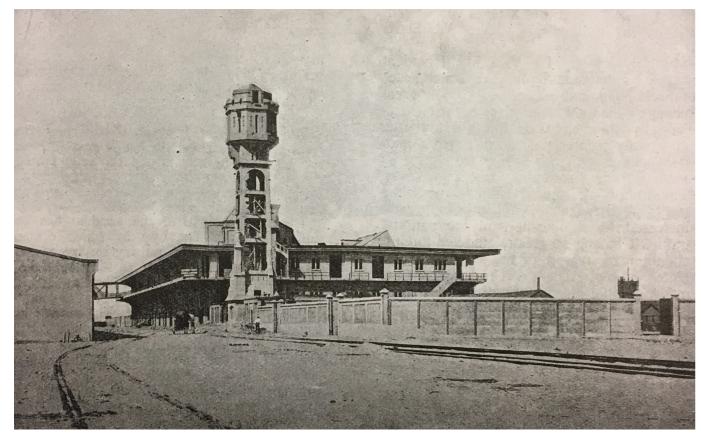




illustration 14 - Photograph of the Katoenveem in 1919 (The Pioneer, p69, Stadsarchief Rotterdam)

illustration 15 - Photograph of the Lekhaven in 1939 (water tower can be seen) (Klaver, J., Stadsarchief Rotterdam)

The rise of costs had mainly to do with the influence the First World War had on the economy of the Netherlands. Also the requirements for a cotton storage warehouse, which called for a state of the art British sprinkler installation, and fireproof overhead doors and a transportation system from America, ensured extra costs.

In a time of material shortage, with a ban on export in many neighbouring countries, construction took twice as long as planned. At the date of publication (march 1919) the warehouse itself was finished, only the sprinkler installation and the traveller system were not

installed yet due to copper shortage and export difficulties. The building was eventually completely finished around 1920 (BBA, 2005).

The traveller system could be operated at a running speed of 6km per hour. It was not necessary to have an operator walking alongside the trolleys; once the path was set they could be set in motion and be stopped at the destination by another worker.

There is no record of the sound these electric trolleys produced, but it must have been a marvel of technology at the time. The cotton bales itself probably provided a lot of sound damping, so perhaps the warehouse was

not a loud place. It is also very difficult to determine the activity that would have taken place there, since these records could not be retrieved. One operator and two labourers were required to move one bale of cotton, so it was a lot less labour intense than most workplaces would have been at the time. There were probably

The image on the left shows the site in 1919, however without any activity taking place there. But this was not how the site would have looked like on normal days. Trains, ships, trucks and people would have been around in a constant buzz of movement. The halls on the inside would have been filled with cotton and the odd movement of a traveller as show on illustration 13. That sight is a stark contrast to the current situation in which the complex has been destroyed and only the empty halls of a warehouse of the once proud cotton industry remains.

But in between the structure saw a lot of change. For instance during the Second World War, the entire harbour area came to a stand still as can be seen in illustration 15. This picture was taken in 1939, one year before the invasion of the Netherlands by the Germans. As said before, the Katoenveem was spared in the bombings of Rotterdam. But in the following years





illustration 16 - Cotton warehouse from the Keilestraat (1982) (Herder, A. de, Stadsarchief Rotterdam)

illustration 17 - Van Lieshout at Katoenveem (2011) (Kok, V. de, via Rijksmonumenten.nl)

there would not have been any work due to the wartime.

After the war, activity and profits started to rise again, during the rebuilding of the Netherlands. However, after the spike in demand started to dwindle after the war and with the introduction of new and cheaper synthetic fibres. This eventually resulted in the closing of the cotton trade in 1964 (BBA, p.9, 2005).

This left the warehouse empty, there are no records of what activity took place during the years after 1964, but illustration 16 does show that the building is in use.

On the gate there is written 'J. Boots Transport B.V.', a transportation firm. And the rest of the building was used for storage by various companies (BBA, 2005). It is not clear which companies they were exactly, but a warehouse function seems most likely.

In 1995 a new chapter opened for the building, with Atelier van Lieshout or AVL. This Dutch studio used the most western compartment as its own studio up to 2011. After this period the studio resided in a building on the Keileweg 18. The containers that are visible on illustration 17 still remain, and were once used by Van Lieshout as a restaurant and an office (avlmundo.org).

AVL also used the outside area quite extensively as a place for displaying art and for gathering people. The success of the studio shows that an art related function can succeed at the location.

#### Current situation

Over time, the warehouse that was designed for the transshipment and storage of cotton, lost its function to become just a regular warehouse up to its last function as a studio for an artist. It has lost the activity that it once held as a busy port of import and export, filled with ships, trains, people and cotton. Up to a time were

it was no more than a large concrete storage building on the end of a pier, with in the end a new spark of life in the form of ALV. Currently the building is all but a derelict remnant of a time long past, longing for repairs and new activity.

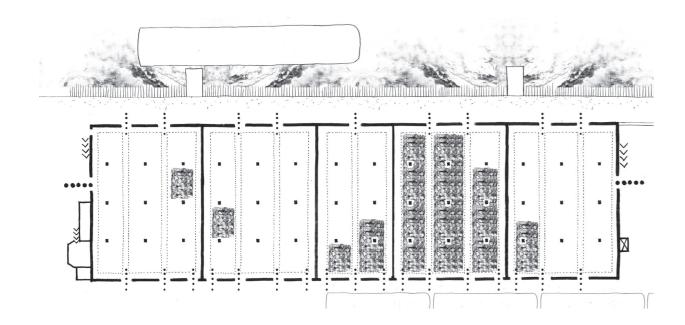


illustration 14 - original use scheme by Audrey Loef (own illustration)

### CONFLICTING VALUES

#### AGE VALUE VS. USE VALUE

The current decayed status of the building illustrates a conflict between age value and use value. The age value of the building is quite high at the moment. However the structure, skin, interior surfaces and services of the Katoenveem have been damaged over time due to weathering. When redeveloping and restoring the building, the use value will be increased. This can not be done however without decreasing the age value of certain aspects of the building.

#### AGE VALUE VS. HISTORICAL VALUE

The components of the complex have changed over the years; parts have been destroyed or have decayed over time. Currently it is no longer a complete and operational system. There would be a conflict between the age value and the historical value when bringing the complex closer to the operative Katoeveem. When redeveloping the building, restoring certain aspects of the Katoenveem in order to enhance the historical value would directly diminish the age value of the building.



illustration 15 - damages in facade by Elmer Pietersma (own illustration)

#### HISTORICAL VALUE VS. USE VALUE

As mentioned before, the Katoenveem complex was specifically built for cotton storage. Its entire structure, space plan, skin and interior surface have therefore been designed accordingly. This is such a specific design that redeveloping the building according to any other function would directly mean a decline in the historic value of the building. Unless another function can be found that would fit the building seemlessly, change will have to be made to the space plan, structure or the skin in order to prepare the building for future use.

### **OBLIGATIONS**

COMPLEX(I) Restore and show traces of former Katoenveem complex. In order to maintain the historical value of the site, the pieces of the complex that have prevailed over time need to be taken into consideration when starting to design. In order to maintain the value and integrity of the ensemble, from which a lot has been lost over time already, the aspect that are still present (e.g. parts of the wall, the railway and the crain foundation), as shown through high valued colouring in the matrix, need to be preserved. The traces are of significant value and therefore there is an obligation to rehabilitate them, as well as increasing their visibility.

SERVICES(II) Maintain the parts of original services (e.g. the sprinkler system and the conveyor system) in and around the building. The remaining fragments of original services like sprinklers, railways, conveyors and lights give an insight in the original use and purpose of the Katoenveem. Therefore these parts should be looked after when a new design is proposed, to maintain the historical value of the sprinkler- and the conveyor system. This does not mean nothing can be changed, but original services may never be removed completely.



illustration 16a - complex traces (I) by Joost van den Berge illustration 16b - services (II) by Elmer Pietersma illustration 16c - compartmentation (III) by Xihao Yi illustration 16d - originality (IV) by Audrey Loef illustration 16e - atmosphere (V) by Audrey Loef illustration 16f - restoration (VI) by Audrey Loef (own illustration)

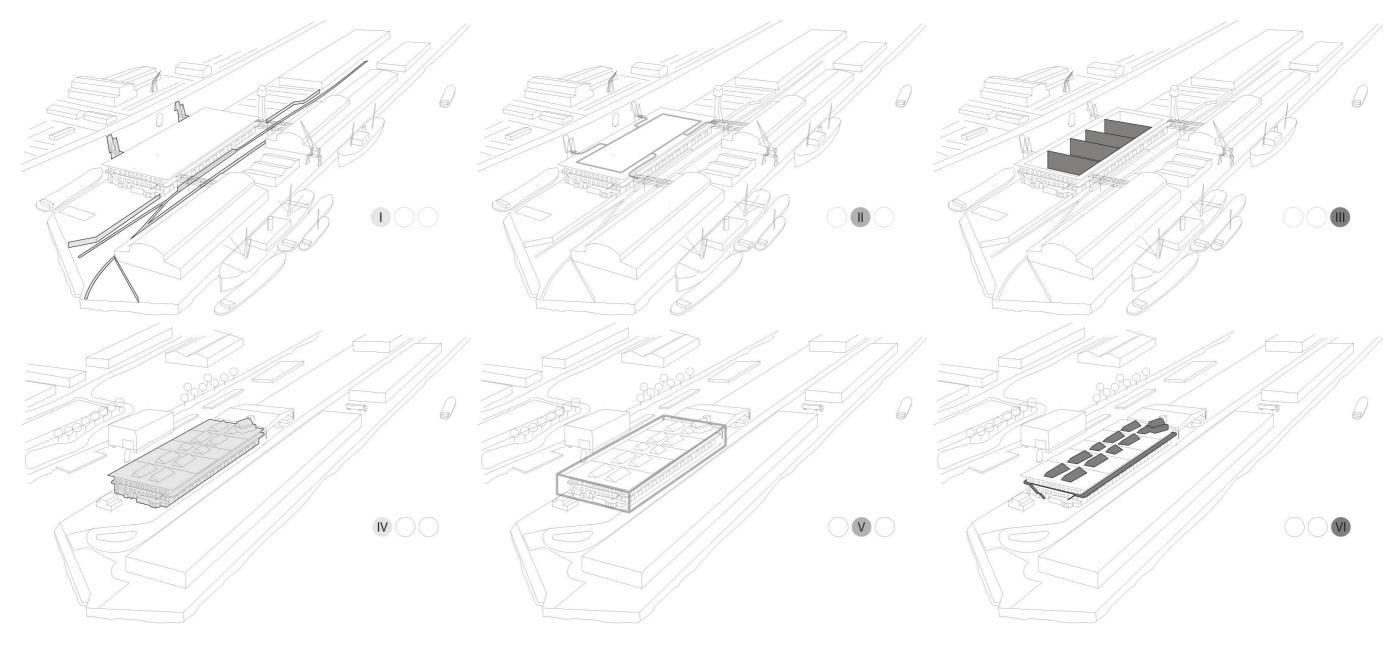


illustration 17a - complex (I) by Jan Huis in 't Veld illustration 17d - originality (IV) by Jan Huis in 't Veld (original illustration by Elmer Pietersma)

illustration 17b - services (II) by Jan Huis in 't Veld illustration 17e - atmosphere (V) by Jan Huis in 't Veld (original illustration by Elmer Pietersma)

illustration 17c - compartmentation (III) by Jan Huis in 't Veld illustration 17f - restoration (VI) by Jan Huis in 't Veld (original illustration by Elmer Pietersma)

COMPARTMENTATION(III) The compartmentation must be preserved. In order to conserve the historical and rarity value of the space plan the five compartments must be sustained. Changes can be made to the fire walls in order to add new use value, but the pentagonal compartmentation must remain present in a new design of the Katoenveem.

**ORIGINALITY**(**IV**) Keep original structure, facades, floors and roof of the Katoenveem. Almost the complete building of the Katoenveem contains the same materialization as when it was built. Therefore, parts of the building can only be removed or changed when absolutely necessary. The originality of the building is of high value and must be treated accordingly.

**ATMOSPHERE**(V) Maintain the historical industrial atmosphere. In a new design the character and atmosphere, that can be found in the structure, skin and space plan of the original Katoenveem must still be present. Indirect daylight, materiality, proportionality and overall rawness are key aspects of the atmosphere. When adding new aspects to the Katoenveem it is obligatory to look for a balance between the old and the new to preserve aesthetic value or 'belevingswaarde'.

RESTORATION(VI) Repair and restore the Katoenveem. In order to create new use value in the building the Katoenveem needs to be renovated. Repairing and restoring would also help to retain the historic value of the building. It is therefore an obligation for anyone who starts redevelopment of the Katoenveem. (Roman numbers correspond to illustrations.)

### **OPPORTUNITIES**

INTRODUCTION For the further design process it is important to know which opportunities a site or building offers. These can be used to strengthen your design or proposal and/or improve the project. Also the obligations can be opportunities like the obligation of maintaining the compartmentation in a certain way that serves your design. If you choose for example to divide the building in functionality this compartmentation can be of great value and offers a great opportunity of fulfilling your design approach as well as honouring the value you have given and obligation of preserving the compartments. Besides this example the Katoenveem and complex offers plenty of opportunities.

 ${\bf COMPLEX}({\bf I})$  We as a group decided that the cultural value of the building should be improved by for example restoring the complex value, making it part of a whole instead of just a single building as it once was part of larger complex. In this case it could be interesting to show or rebuild the former concrete complex wall which bounded the Katoenveem complex or the revival of the watertower or a reference to it. This last example can highlight the site as a landmark and increase or strengthen the cultural and improve the historical value. It can even be restored in such a way it delivers water to the building once more. It is all a personal choice and discussable with the rights arguments and reasons.



illustration 18a - complex (I) by Joost van den Berge illustration 18b - services (II) by Joost van den Berge illustation 18c - skylights (III) by Xihao Yi illustration 18d - neighbourhood (IV) by Elmer Pietersma illustration 18e - water relationship (V) by Elmer Pietersma (own illustration)

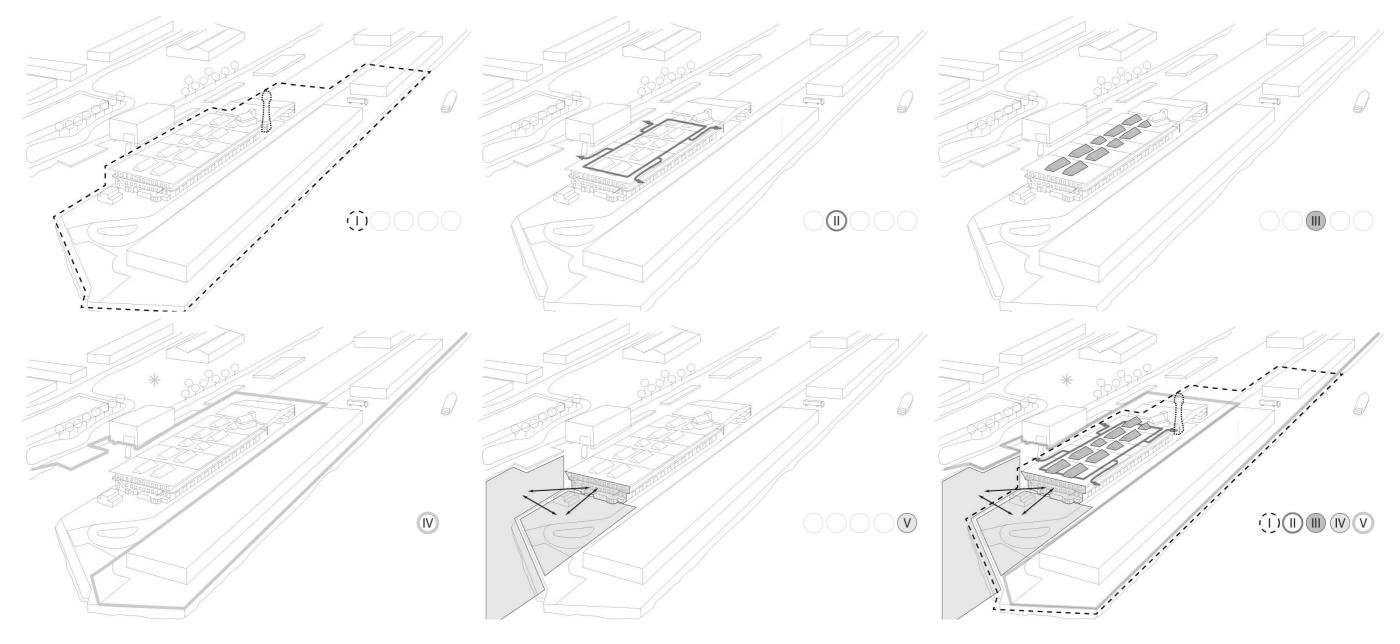


illustration 19a - complex (I) by Jan Huis in 't Veld illustration 19d - neighbourhood (IV) by Jan Huis in 't Veld (original illustration by Elmer Pietersma)

illustration 19b - services (II) by Jan Huis in 't Veld illustration 19e - water relationship (V) by Jan Huis in 't Veld (original illustration by Elmer Pietersma)

**SKYLIGHTS** (III) Another opportunity is using the skylights for more lighting but as they are directed to the north they won't serve functions that need much sun or daylight. Opening them up more can be a solution however this will be an intervention that has to be defended very well as it touches and changes much of the original design and functioning of the building.

**NEIGHBOURHOOD**(IV) The neighbourhood surrounding the Katoenveem is going to be turned into a mixed urban area, meaning that a lot of new housing will be built. This can make it relevant for the new function to be a public one that can serve as a new hub for

activity in the Merwe-Vierhavens area and once again be a building that is full of activity as it once was and meant to be.

**WATER RELATIONSHIP**(V) Currently there is no relationship between the building and the water, although the relationship with the water, harbour and shipping was probably the most important one when the building was still operating. This possible revival of the relation with the water can be however a big opportunity for the design process, the building, the hole area and improve the historical value of the site. (Roman numbers correspond to illustrations.)

illustration 19c - skylights (III) by Jan Huis in 't Veld illustration 19f - conclusion by Jan Huis in 't Veld (original illustration by Elmer Pietersma)

CONCLUSION Conclusively the building, but not to forget the complex and surroundings, offer plenty opportunities to continue the design process unto a final design proposal. But we will always take into account the value assessment and the obligations that came from it to make any adjustment or intervention justifiable.

SERVICES(II) Next to that the services that are still left in the building could be re-used. The walkways however cannot be built upon but they can be used to walk on if the railings would be repaired. The conveyor system with the I-beam running around the ceiling might or might not function anymore but these beams could at least be used for a new or other function. A lot of functions can be thought about as the conveyor system and the roof that carries the system were built for heavy loads. Moreover as the roof has been built especially to take heavy loads there are opportunities of using the roof and incorporate it into the design.

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