

## ICOMOS Technical Review

<b>Property</b>	<b>Mills Network at Kinderdijk-Elshout</b>
<b>State Party</b>	<b>The Netherlands</b>
<b>Property ID</b>	<b>818</b>
<b>Date inscription</b>	<b>1997</b>
<b>Criteria</b>	<b>(i)(ii)(iv)</b>
<b>Project</b>	<b>New spatial developments</b>

ICOMOS received information transmitted to the World Heritage Centre by the Dutch authorities in the form of a Report on the state of conservation and proposed plans for spatial developments within the boundaries of the World Heritage property Mill Network at Kinderdijk-Elshout. This report was accompanied by a Heritage Impact Assessment (HIA) report.

### **Outstanding Universal Value of the World Heritage property**

A retrospective statement of Outstanding Universal Value was submitted to the World Heritage Committee and adopted at its 40<sup>th</sup> Session in Istanbul (2016). An extract of the statement was provided within the HIA report. There is apparently no major evolution from the time of inscription mainly some precisions and individual justification of criteria:

“The contribution made by the people of “the low countries” to the technology of handling water is enormous, and this is admirably demonstrated by the installations in the Kinderdijk-Elshout area. Hydraulic works to drain the land for agriculture and settlement began in the Middle Ages and have continued uninterrupted to the present day. The site contains all the relevant elements of this technology – dikes, reservoirs, pumping stations, administrative buildings, and a series of impeccably preserved windmills”.

[...]

“Criterion (i): The mill network of Kinderdijk-Elshout is an exceptional man-made landscape bearing powerful testimony to human ingenuity and fortitude over almost a millennium in draining and protecting an area by the development and application of a hydraulic technology.

Criterion (ii): The Kinderdijk-Elshout mill network with its historic ‘high and low polder areas with natural draining’, watercourses, mills, mill flows, pumping stations, outlet sluices and administrative buildings is a unique example of the Dutch technological development of water draining, which has been copied and applied in many places in the world.

Criterion (iv): The Kinderdijk–Elshout mills network is an extremely ingenious hydraulic system that is still functioning today. This system has enabled man throughout the centuries to settle here and to cultivate large parts of the peat landscape. It is the only example of this scale both nationally and internationally, making it a unique and extraordinary example of both an architectonic ensemble and a cultural landscape, which is typical for the Netherlands and illustrates a significant phase in human history.”

## **Information submitted in accordance with paragraph n°172 of the *Operational Guidelines***

The central aims of the plans examined in this report dated August 2016 are:

“The proposed plans and measures presented in this report reflected the wish to separate and untangle the water management function and the Kinderdijk-Elshout site for Alblasserwaard polder as a whole from the property’s function as a tourist destination, and to improve the site’s spatial quality, sustainable development and educational use.”

Indeed, a long series of studies were carried out since the time of inscription, preceding current projects. This succession of studies showed the difficulties of the potential reshaping and improvement of the tourism zone with regards to : the preservation of the spirit of the place, the maintenance of the historical building and landscape; and the preservation of the visitor understanding of the “hydraulic machine”. No development was realised during this long period and the management system of the site was substantially revised in 2012.

The idea to launch a more in depth project both for water management and sustainable tourism development restarted in 2013, with a *Site Vision Document for Kinderdijk-Elshout* as a guideline document. This led to a design competition for the entrance zone (2014) and to the Management Plan of the site (2015). A complete project resulted from the design competition (2015-2016), associated with a Heritage Impact Assessment (August 2016) and a Report on the state of conservation and proposed plans for spatial developments, prepared by the State Party (August 2016).

### **State of conservation and management questions in the early 2010s**

The property faced important questions of maintenance and management from the time of its inscription on the World Heritage List (1997). To comply with the requirements of the *Operational Guidelines*, which since 2005 requests all World Heritage nominations to include a management plan, a management plan for the mill network of Kinderdijk-Elshout was prepared in 2015.

The Blokweerse mill was damaged by a fire in 1997 and was restored in the following years. In 2012 the restoration of 14 of the 19 Kinderdijk mills was completed. All 19 mills are now capable of pumping again. In addition, management and maintenance work is carried out on a regular basis. Preservation plans have been produced for the 19 mills setting out the repair work required over a period of six years (2013-2018). In 2015 several restoration activities were carried out on the Wisboom pumping station and a restoration plan was prepared.

Visitor numbers have also increased, meaning that it is becoming increasingly difficult to handle them adequately. Meanwhile SWEK (the management body of the site) has already taken several measures, including offering package arrangements and promoting water transport, so that more tourists now reach Kinderdijk along the river Lek. The further increase in visitor numbers and logistical problems require a qualitative improvement of the entrance area.

The current state of the polders is comparable to the situation in 1996. There have not been many changes, partly due to the “protection” of the site as a World Heritage property. Nevertheless, a question remains regarding the deterioration of the reservoirs because the reed vegetation is changing. The water surface is increasing whereas the amount of reeds is decreasing. The challenge here is to stop the reed from disappearing.

Most of the dykes have not undergone any notable changes between the time of the property’s inscription on the World Heritage List and the present day. Dykes need to be regularly adjusted and maintained in order to guarantee water safety, and recent investigations have shown that the dykes need to be improved.

The State Party report concludes: “For several reasons, interventions are needed in some respects in order to assure the permanent preservation of the site. The HIA has been prepared in order to ensure that the interventions are carried out carefully.”

### **The different projects and challenges**

The State Party “spatial plan” announces the following general intentions:

- To develop sustainable tourism, and to examine whether the program aims are compatible with an adaptation of the site to receive more visitors whilst offering them a more diversified experience of the polder site and view of water management; this would imply an important restructuration of the entrance zone;
- To adapt the water management system (storage, pumping) to current situation and security norms; these measures involve the improvement of the dykes and the reduction of water level fluctuation; the Water Board has opted for an approach in which different works are combined: raising and strengthening the dykes, management of natural species and improvement of water quality;
- To manage natural values associated to the cultural site and landscape via the implementation of Natura 2000 directives for the restoration of reed-land;
- To propose restoration works for the “Lage Boezem” (restoration of a reservoir function and a mill reconstruction after fire destruction in the middle of the 20<sup>th</sup> Century).

The situation is further complicated by financial funds granted by the Ministry of Education and Culture, because a specific budget must be approved quickly for the tourism question (before the end of the year 2016). This is related to a series of possible constructions and territory equipment for:

- Redeveloping the entrance zone with a separation of tourism zone and technical zone for the water-management logistics;
- Building a new interpretation and visitor centre;
- Restructuration of the Middlekade (central dike and path) of the main canal
- Construction of a footbridge from the Wisboom pumping station and future reception building to the visitor centre;

Additional programs with less tight deadlines are also studied or evocated in the global spatial plan, out of the immediate financial question, such as the development of new visitor tours, the restitution of the Lekkerlandse Lage Boezem [Low Reservoir], and the reconstruction of the 20<sup>th</sup> windmill of which today only its archaeological foundations remain. The construction of a vast Craft Centre is also evocated (Mill Yard or Molenerf) though it is not studied in the HIA.

### **Methodology of the proposed “Spatial Plan”**

The State Party proposes a multi action plan relying upon a Heritage Impact Assessment (HIA), prepared by a specialised agency. The HIA assesses the potential impacts related to the project, as recommended by ICOMOS guidelines<sup>1</sup>. The general HIA methodology has been respected and a “Supervisor Group” had been implemented within the Cultural Agency of the Netherlands. The description of the project makes up a large part of the documentation<sup>2</sup>.

The implementation of the HIA relies on a synthesis of the the property’s OUV summarised as sustained by three main items as follows:

- Ingenious hydrological system;

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<sup>1</sup> *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*, ICOMOS, January 2011.

<sup>2</sup> ICOMOS regrets that photos were not available in the English version leading to a complex exercise of back and forth verification in order to see the appearances of sites and constructions.

- Rhythm of 18<sup>th</sup>-century mills;
- Man-made Dutch landscape.

The HIA intends to check the positive and negative effects of the different projects on the OUV in relation to the above elements.

The HIA lengthily studies the tangible attributes of the site forming the main features and landmarks of the cultural landscape of polders and drainage system:

- Elements of the entrance zone (end point of the water system or water discharge);
- Windmills and pumping stations;
- Specific elements of polders and reservoirs;
- Dykes;
- Sluices.

The assessment by the complete methodology has been effectively carried out for the following individual projects<sup>3</sup>:

- Redesign of entrance zone
- Visitor Centre
- Redesign of Middelkade
- Bridge Middelkade –Overwaard Molenkade
- Reception building
- Education building: auxiliary pumping station
- Nature education building
- Redesign Overwaard Molenkade
- Access path reception building – Lekdijk river dyke

After the presentation of the HIA results, the report examines the best solutions and appropriate recommendations (chapter 7) to minimise the main identified adverse effects in the perspective of the conservation of Outstanding Universal Value and its safeguarding for future generations.

### **ICOMOS conclusions and recommendations**

ICOMOS considers the main challenge of the proposed program is to preserve the Outstanding Universal Value, especially the landscape value and the authenticity of the place; a reasonable balance must be found between the needs for tourism facilities, valorisation/education improvements and an appropriate level of conservation of the OUV and of its landscape significance.

At times, the study appears guided mainly by the need to increase visitor numbers, and the design of the new constructions and facilities seems more guided by this goal than conservation of the OUV. The level of new constructions must remain limited and fully justified.

Construction of a Visitor Centre and associated facilities such as a footbridge for new touristic ways, must remain very discrete in visual terms and without direct impact on the main views on landscapes of polders, canals and historical windmills. Additional constructions linked to existing buildings may remain limited so as not to strongly change the character of the entrance zone and the technical functions of the entrance zone as final sluice and location of terminal pumping station must remain dominant.

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<sup>3</sup> ICOMOS regrets that the conclusions tables of the HIA are not available in the English version, leading to a complex exercise of back and forth verification in order to understand results.

The question of the 20<sup>th</sup> century mill reconstruction must be examined very carefully because mills are directly related to the Outstanding Universal Value. Generally speaking, ICOMOS does not recommend such architectural reconstruction, except in very exceptional circumstances when well justified.

Additional notable construction without any direct relationship to preserving the OUV, such as a Craft Centre, are absolutely not recommended.

Generally speaking, ICOMOS supports the recommendations provided in chapter 7 of the HIA report; when there are different possibilities, the conservation of the property's integrity and the authenticity of its attributes, as well as the lowest visual impact, are preferable.

### **Redesign of the entrance zone**

As detailed, the challenges for sustainable tourism development with a reasonable increase in visitor numbers and better accessibility, the needs for improved valorisation by new museum and education areas, and more complete visit tours possible by new walking paths could be accepted if they remain limited and compatible with the expression of OUV.

Nevertheless, careful attention must be paid to some of the possible visual impacts of architectural projects and structural projects. ICOMOS especially recommends the State Party to consider the following when developing plans:

- To keep the major axe of view from the entrance existing constructions to the main canals free from any visual impact;
- To avoid car parking close to the transition area between entrance zone and canal - polder view;
- To take care of potential aggressive visual impact of the large horizontal white bandeau of the bezoekerscentrum project (photos SOC report p. 14 and HIA p. 50, Dutch Version) and possibly similar remarks for other visitor facilities; to ensure all may remain discrete in visual terms and of minimum of height (Reception building, p. 54 DV), with lower constructions preferable;
- To consider whether the Visitor Centre location could be modified as presented in Chapter 7, reusing existing constructions or a location outside the core zone must be favourably considered; a similar recommendation goes for the reception building;
- The footbridge must remain as discrete as possible in visual terms and lower solutions must be preferable;
- The redesign of paths on the dykes should keep aspect and dimension of ancient rural paths, even if they are designated for bicycles (artificial modern surfaces are disapproved, traditional surfaces with natural materials or pavements are acceptable); eventual furniture should be simple, using natural materials and easily to dismantle;
- The reshaping of the dykes must keep traditional appearances.
- The separation between a technical zone for water management and a tourism zone for safety reasons has complete legitimacy.

### **Increase in visitor numbers**

The visitor number perspective is announced as significantly increasing: from around 400 000 in 2015 to 500 000 expected in 2017 and around 700 000 in the 2020s. This the data was used when assessing the constructions and facilities. The dossier itself recognizes that the proposals could affect OUV and its expression. Considering the limited space at the entrance zone and of the fragility of the balance between human construction and the natural features of the property, ICOMOS recommends the strict control of increasing visitor numbers and to not attempt to maximise this number. Limitations per day could be implemented during the most visited periods.

### **Natural challenges**

The restoration of the reservoirs is conform to the conservation of Outstanding Universal Value, and the restoration of natural species such as reed is acceptable as attributes of the traditional landscape, in conformity with Natura 2000 guidance. The distinction between reservoirs and polders must be kept as an important hydraulic attribute of the site, and we know that some important changes already occurred before the time of World Heritage nomination (see restoration project for the Lage Boezem). Additional studies could be required to see what is the most acceptable solution taking into account the integrity and authenticity of the whole hydraulic system and of the restitution of the traditional landscape including natural its species.

### **Water management, improvement of dykes**

The technical goals of the Water Board authority has full legitimacy and it pursues the very long tradition of water management and improvement in the Netherlands. However, ICOMOS recommends the use of traditional materials as much as possible and to keep the traditional external appearances and dimensions, regardless of whether modern hydraulic technologies are required for some works. If some part of dykes must be moved, this should be as limited as possible.

### **Restoration of Lage Boezem (reservoir) and reconstruction of 20<sup>th</sup> century windmill**

The Lekkerlandse Lage Boezem was added to the Nieuw-Lekkerland polder in the 20<sup>th</sup> century, when the reservoir dyke was excavated and the water level was lowered. The main project consists to rebuild the dyke and to restore the ancient water level of the reservoir, which will lead to the recreation of a marshland as it was originally which will in turn reinforce the reed presence.

The restoration of the reservoir as it was initially foreseen could be seen by ICOMOS as an improvement of the integrity of the property, but historical documentation must be gathered to clearly demonstrate that the project is conform to the ancient polder situation.

The reconstruction of the windmill n° 20 is not recommended, even it is carried out conform to technical and historical documentation. If this must be done, contrary to ICOMOS recommendations, it must be made very clear that it is structure is not an authentic element of the site.

ICOMOS remains at the disposal of the State Party should clarification or further assistance be required.

ICOMOS, Charenton-le-Pont  
November 2016