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## **Bergpark Wilhelmshöhe (Germany) No 1413**

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### **Official name as proposed by the State Party**

Water features and Hercules within the Bergpark Wilhelmshöhe

### **Location**

State of Hesse  
Federal Republic of Germany

### **Brief description**

Descending a long hill crowned by the giant statue of Hercules visible from great distances, the monumental water displays of Wilhelmshöhe were created from 1689 by the Landgrave Carl around an east-west axis linking the Carlsberg with the palace of Karlssaue. Reservoirs and channels behind the Hercules Monument supply water to the complex system of valves to the extensive Baroque water theatre with its hydro-pneumatic devices, grotto, fountains and 350 metre long Grand Cascade. Beyond this, channels and contrived waterways wind across the axis, feeding a series of dramatic waterfalls and wild rapids, the geyser-like Grand Fountain which leaps 50m high, the lake and secluded ponds that enliven the Romantic garden created in the 18<sup>th</sup> century by Carl's great-grandson, Elector Wilhelm I.

### **Category of property**

In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a *site*.

ICOMOS considers that in terms of the *Operational Guidelines for the Implementation of the World Heritage Convention* (November 2011), paragraph 47, this is also a *cultural landscape*.

## **1 Basic data**

### **Included in the Tentative List**

15 March 2010

### **International Assistance from the World Heritage Fund for preparing the Nomination**

None

### **Date received by the World Heritage Centre**

19 January 2012

### **Background**

This is a new nomination.

### **Consultations**

ICOMOS has consulted its International Scientific Committee on Cultural Landscapes and several independent experts.

### **Technical Evaluation Mission**

An ICOMOS technical evaluation mission visited the property from 11 to 15 September 2012.

### **Additional information requested and received from the State Party**

A letter was sent to the State Party on 21 September 2012 requesting clarification on identification, conservation, boundaries, protection and management. A response was received from the State Party on 16 October 2012 and the information has been incorporated into relevant sections below. A second letter was sent to the State Party on 20 December 2012 requesting additional information on protection, management and the name of the property. The response from the State Party dated 15 February 2013 has been incorporated into this report.

### **Date of ICOMOS approval of this report**

6 March 2013

## **2 The property**

### **Description**

Located in the Habichtswald forest on the western outskirts of the City of Kassel, the nominated property includes the drainage catchment of the Essigberg west of the Hercules Monument which supplies the water features, the total area of the garden park with its woodlands, and the Aschgraben ditch, which connects the water catchment with Drusel Creek and the lower part of the garden as an outlying loop. The nominated property area is 558.7ha, surrounded by a buffer zone of 2,665.7ha.

The Bergpark was laid out by the Landgrave Carl of Hesse-Kassel from 1689 onwards along an east-west axis descending a height of about 315 m overall from the stone octagonal building on the Carlsberg plateau. With its 40 m high pyramid carrying the 8.5 m high bronze statue of Hercules Farnese, the Octagon/Hercules Monument is visible for miles around. On the terrace below the Octagon rustic stonework surrounds the Vexing Grotto with Polyphemus playing his flute – its sound being produced by the hidden water-wheel-powered organ, in front of which is the Artichoke Basin with its acoustic 'firework' effect fountain. Water descends in steps around each side of the grotto to the tumbling Felsensturz waterfall at Giant's Head Basin on the next terrace, where a large boulder representing the head of Enceladus gives rise to a 12 m high fountain. In two semicircular niches are statues of a faun and a centaur each playing a horn with sound produced by the hidden *camera aeolia*.

The Grand Cascade hurries the water on down a central cascade flanked by two narrower cascades via three oval basins to Neptune's Basin with 235 cu m of water every

ten minutes gradually obscuring the figure of Neptune in his grotto. From here the water is conducted via a partly underground conduit to the Fountain reservoir to supply the Grand Fountain in its pond. This was completed during the reign of Carl's grandson Friedrich II, when cast iron pipes could be made sufficiently strong to withstand the water pressure required to send the water up 150 feet - higher than every other fountain in Europe at the time. The fountainhead consists of a strong central jet surrounded by 12 small ones, resulting in a geyser effect.

On axis and east of the Grand Fountain, Grand Cascade and Hercules Monument is the Neo-classical Wilhelmshöhe Palace, built by Carl's grandson, Elector Wilhelm I to replace an earlier Renaissance building. To its north are the Great Greenhouse, Ballroom Pavilion, Stables, Riding Hall, Orchard House and Carriage House. To its south is the mock Chinese village known as Mulang, with its pagoda and pavilions, constructed as part of the Picturesque garden extension with its numerous philosophical and mythological follies including Pluto's Grotto, during the reign of Wilhelm's father, Friedrich II. A little further west is Löwenburg Castle with its 'medieval garden, testament to Wilhelm's Romantic taste, which is further expressed in the wild, 'natural' waterfalls, cascades and 'ruins' of his period.

The water for these later displays is supplied from the Drusel Creek via the one kilometre long Aschgraben channel into the Aschsee pond. Water is also drained from the disused Hercules coal mine into the Aschgraben channel, and can be supplemented from the Sichelbach reservoir via an open connecting ditch. The Romantic water displays of Elector Wilhelm I begin with the dramatic Steinhöfer Waterfall supplied from Aschsee pond via Pfaffenteich pond. The water is released via two valves operated consecutively, starting with a waterfall over a 20 m high wall of rock 50 m wide, and then hurtling for ten minutes down rapids between massive basalt steles before running along a natural-looking stream to the Fountain reservoir. Overall it uses 430 cu m water every 20 minutes - about the same quantity as the Grand Cascade. Next the water is released from the Fountain reservoir by two valves simultaneously, to roar down the rocky bed beneath Devil's Bridge (adjacent to Pluto's Grotto) and tumble over a 10 m waterfall into Hell pond. From here the water is led on to the large 'ruined' Aqueduct, spilling over a 30 m drop to run on via the Peneus Cascades to the Fountain pond.

East of the Palace the tranquil Lac is supplied by water meandering down a stream from the Fountain pond via the Jussow waterfall and other falls around the Isle of Roses. Below the Lac the water drains back into the lower reaches of Drusel Creek via small cascades and once outside the property, in pipes. To the north-west of the palace beyond the Aqueduct the largest waterfall, the New Waterfall comprising three falls each 16 m wide and deep was supplied by water collected in reservoirs from springs and wetlands north of the woodland and a ditch from Hell pond. A riverbed lined with basalt steles conducted the water down several cascades towards the valley.

However problems with leaks soon after the waterfall's completion and again in 1943 resulted in its closure. The reservoirs, ditches and the rocky architecture of the falls are still intact.

The technical details of the hydraulic features are described in detail in the nomination dossier, and include complex valve systems, and some of the original cast iron pipes still serving their original purpose. The *camera aeolia* which operates the horns was restored in the 1960s.

### **History and development**

The Bergpark was built over the earlier hunting lodge estate of Landgrave Moritz of Hesse dating from 1601. It had included a grotto with water displays, thought to have been in the location of the present Pluto's Grotto. By the time Landgrave Carl came to power, following the Thirty Years' War, the property was largely in ruins. Carl's father Wilhelm VI had an interest in hydraulics but it was Carl who developed the property then known as the Winterkasten, creating the Baroque water display that exists today. Carl engaged the well-known engineer Denis Papin to advise him on hydraulic works, and following his tour to Italy in 1669/70 he appointed the architect Giovanni Francesco Guerniero to take charge of the design. That it was intended to extend to double the length of the current Grand Cascade is attested by drawings and the model now on display in the Wilhelmshöhe Place. It is assumed that lack of funds prevented the full project being achieved. Following Carl's death in 1730 the park's water supply system and water features were maintained by his sons Friedrich I (1730-51) and Wilhelm VIII (1751-60).

Major repairs and development were undertaken by Carl's grandson Friedrich II (1760-85), who restored the Baroque features and surrounded them with a Picturesque landscape park based on English models. Married to a daughter of the British king and in personal contact with William Chambers, he had visited Kew Gardens on several occasions. He continued the swathe along the axis from the Octagon towards the City of Kassel, built Pluto's Grotto across its path and created meandering paths through densely planted trees and shrubs leading to settings adorned with garden buildings reflecting themes from literature or Classical mythology. His major hydraulic work was the successful completion of the Grand Fountain begun by his grandfather. It is suggested in the nomination dossier that the Grand Cascade extension planned by Carl was not undertaken by Friedrich II because it would not have been in accordance with Chambers' principles.

Friedrich's son Wilhelm IX (who became the Elector Wilhelm I) took over the Bergpark on the death of his father in 1785. He continued to employ his father's architect Heinrich Christoph Jussow and Court Gardener Daniel August Schwarzkopf together with the water engineer Steinhöfer, and ordered the removal of numerous wooden statues and small buildings, and the conversion of artificial terraces into more natural slopes.

His new palace, completed in 1798 is said to derive from the tradition of English palaces of the period, Jussow having made a study tour to England in 1787. The subsequent development of the Gothic Revival Löwenburg Castle, with its part ruinous exterior and sumptuously decorated interior rooms, was used by Wilhelm as a private refuge; the ruined Aqueduct, wild and craggy waterfalls and cataracts and other Romantic features are said to derive from the Romantic ideas expressed by Thomas Whately and Christian Cay Lorenz Hirschfeld in their works on garden art theory. Wilhelm also converted the former Fountain basin into a natural-looking pond, and Friedrich's fishponds into the Lac. During the French occupation of 1807-1813, the park was used by the emperor Napoleon's brother, Jerome Bonaparte. On his return from exile Wilhelm added a couple of temples. His successor Elector Wilhelm II (1821-47) extended the park to the north, and added the New Waterfall, the last great cataract to be designed by Steinhöfer. He also added new buildings to the north of the Palace including the early glass and iron Great Greenhouse and the new cast-iron Devil's Bridge.

Since 1830 the Octagon and Baroque water features have undergone large scale repairs, the Octagon having been threatened with collapse in south and south-western parts. Various reservoirs and channels were also repaired and some alterations made. At the end of World War II the park passed into state-ownership, managed by the Prussian authority in charge of palaces and gardens. The Palace became a museum focusing on the period of landgraves and electors. The Hercules Monument and Baroque water features were repaired using modern bonding and water proofing materials. Following WWII management passed to the administrative authority of the federal state of Hesse in 1949 and in 2006 it passed to the State Museums of Kassel. An extensive program of restoration and repair of the Hercules statue and Octagon was carried out from 1950 to 1971, including consolidation of the subsoil, masonry anchoring, stone repair and grouting. The stairs and basins of the Grand Cascade were also repaired and resurfaced. The water displays, which had been suspended in 1947 due to leaks and lack of water, were resumed for the 1963 season. Further repairs were undertaken in the early 1990s.

### **3 Justification for inscription, integrity and authenticity**

#### **Comparative analysis**

Wilhelmshöhe is compared in the nomination dossier with other Baroque gardens in Germany including the World Heritage listed Castles of Augustusburg and Falkenlust at Brühl (1984, criteria (ii) & (iv)) and the Garden Kingdom of Dessau-Wörlitz (2000, criteria (ii) & (iv)), and with Schönbrunn in Austria (1996, criteria (i) & (iv)), none of which are laid out on similar topography and do not feature grand, dramatic water displays of the type evident at Wilhelmshöhe. ICOMOS notes that the same comment

applies to the World Heritage listed Würzburg Residence with the Court Gardens and Residence Square (1981, criteria (i) & (iv)). It also applies to several other German gardens discussed in the nomination dossier, including Muskauer Park (2004, criteria (i) & (iv)). The nomination dossier notes that gardens had served as a means of princely representation ever since the Renaissance in Italy, and from the 17<sup>th</sup> century onwards in France. The Wilhelmshöhe water features are compared with those at a number of earlier Italian and French gardens of the Renaissance period on the World Heritage and Tentative Lists. In particular the Grand Cascade is compared with the water stairs at Villa Lante, Bagnaia and Villa Aldobrandini, Frascati (Tentative List, 2006) and said to have derived from the latter which also featured the water-spouting giant Enceladus and the musical statue of a centaur. It is asserted in the nomination dossier and ICOMOS concurs, that these and the World Heritage listed Villa d'Este, Tivoli (2001, criteria (i), (ii), (iii), (iv) & (v)) while presenting proof of wealth and sophistication do not compare in terms of size and dramatic display with the monumental Baroque water theatre at Wilhelmshöhe. Similarly, a number of grand Baroque period gardens and water features in other European countries are discussed in the nomination dossier, as well as those on the World Heritage List including the Palace and Park of Versailles, France (1979, criteria (i), (ii) & (vi)); the Gardens and Castle at Kroměříž, Czech Republic (1998, criteria (ii) & (iv)); the Royal Domain of Drottningholm, Sweden (1991, criterion (iv)); Blenheim Palace, UK (1987, criteria (ii) & (iv)); Studley Royal Park including the Ruins of Fountains Abbey, UK (1986, criteria (i) & (iv)) and the Château de Vaux-le-Vicomte on the Tentative List of France and considered not comparable in terms of the grandiose design concept, scale and drama. It is considered that the World Heritage listed 18<sup>th</sup>-Century Royal Palace at Caserta with the Park, the Aqueduct of Vanvitelli, and the San Leucio Complex (1997, criteria (i), (ii), (iii) & (iv)) is comparable in scale and vision encompassing the water displays, palace and city, and that it derived from Wilhelmshöhe being constructed 50 years later. However this is the only known example of Wilhelmshöhe's influence. It is suggested in the nomination dossier that the value of Wilhelmshöhe is not diminished by this later echo of its achievement, and ICOMOS concurs with this assessment. The Grand Fountain was the tallest artificial waterspout fountain in the world when it was built and inspired others to go higher. Its height was exceeded by the Emperor fountain in Chatsworth 1844. The Hercules monument at the west end of the main axis of the garden is unmatched in terms of its size and dominance over the landscape and visibility from beyond. The construction of the giant Hercules statue, crowning the Octagon on a pyramid was an exceptional technical challenge in its time; later statues using wrought copper over a structural frame cannot be said to match this in terms of its innovation.

Regarding the water features of the Romantic period, the nomination dossier names and describes waterfalls in many landscape gardens throughout Europe concluding that there are none that match the examples from the Bergpark. Even in Great Britain with its vast number of

landscape gardens preserved from the 18<sup>th</sup> and 19<sup>th</sup> centuries none are comparable with the Steinhöfer water fall at Wilhelmshöhe. Aqueducts in the form of artificial ruins can be found in some other landscape gardens (Lednice-Valtice, Schwetzingen), but they are humble compared to the 30m fall from the aqueduct at Wilhelmshöhe. It is argued in the nomination dossier that the ensemble of these water features, in their variety of design and response to models in nature, linked by a continuous water course, stands out as an extraordinary achievement in late 18<sup>th</sup> century and 19<sup>th</sup> century garden philosophy. ICOMOS concurs with this assessment.

ICOMOS notes that the comparative analysis has been undertaken with properties bearing similar values to those of Water features and Hercules within the Bergpark Wilhelmshöhe, inscribed or not on the World Heritage List and at national, regional and international level.

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ICOMOS considers that the comparative analysis justifies consideration of this property for the World Heritage List.

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#### **Justification of Outstanding Universal Value**

The nominated property is considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- Its design synthesised ideas from earlier gardens in France, Italy and England into a work of garden art that subsequently influenced water features in later garden designs.
- It constitutes a unique expression of Absolutist rulership.
- The water features are an outstanding and unique example of monumental water structures in the context of garden art.
- The steam pump developed by Denis Papin was a precursor of the steam engines in Great Britain and as such was a trailblazer of the Industrial Revolution in the Western World.

ICOMOS considers that the first point is debateable, the second and third points are appropriate, but the fourth is not appropriate. Regarding the latter – the steam pump was not actually used for the water features, so there is a lack of direct or tangible association.

#### **Integrity and authenticity**

##### **Integrity**

ICOMOS considers that the nominated property includes all elements necessary to express its value and does not suffer from adverse effects of development or neglect. All water features except the New Waterfall are still operable and together with the Hercules Monument preserve their visual integrity and setting.

##### **Authenticity**

ICOMOS considers that the nominated property is authentic in terms of its form and design, materials and

substance, use and function, techniques, location and setting. The technology required for the water features has been preserved, complete and functional.

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ICOMOS considers that the conditions of integrity and authenticity have been met.

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#### **Criteria under which inscription is proposed**

The property is nominated on the basis of cultural criteria (ii), (iii), (iv) and (vi).

*Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;*

This criterion is justified by the State Party on the grounds that the Hercules Monument and Water Features combine elements derived from water displays and monumental foci in the gardens and parks of Italy, France and England. The steeply sloping terrain at Wilhelmshöhe enabled them to become a monumental display of unprecedented scale and impact, able to be created in very few places elsewhere.

ICOMOS considers that the justification of this criterion is traceable in terms of representing a development in landscape design but is weak because many gardens were influenced by other European examples, and there is only one major example that appears to have been directly inspired by the Bergpark.

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ICOMOS considers that this criterion has not been justified.

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*Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;*

This criterion is justified by the State Party on the grounds that the towering statue of Hercules and the water displays of the Bergpark Wilhelmshöhe constitute a unique expression of the symbolism of Absolutist rulership. This is achieved through the size and domination of the Hercules and the demonstration of mastery of the elementary forces of nature.

ICOMOS considers that the monument and water displays are an exceptional symbol of the era of European Absolutism.

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ICOMOS considers that this criterion has been justified.

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*Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;*

This criterion is justified by the State Party on the grounds that the water displays of Bergpark Wilhelmshöhe are an outstanding and unique example

of monumental water structures. Cascades of similar size and artificial waterfalls of comparable height can be found nowhere else. The Hercules statue, towering over the 560 hectare park, is both technically and artistically the most sophisticated and colossal statue of the Early Modern era. The ensemble of water features with their monumental architectural settings reflects both the Absolutist demonstration of power and princely display in an unparalleled manner. The water displays are thus an outstanding example of European spirit spanning two eras equally important to cultural history – the Baroque and the Romantic age.

ICOMOS considers that the Hercules Monument and water displays are an outstanding combination of features in garden art of the Baroque and Romantic periods in the era of European Absolutism.

ICOMOS also considers that the water features in Kassel are part of a unique manmade designed Cultural Landscape, completely without borders integrated in an evolved landscape. Comparison with the World Heritage listed Aranjuez Cultural Landscape, Spain (criteria (ii) and (iv)) indicates that Kassel again stands out in terms of its mastery of the topography for the ingenious display of water, uniquely integrated into the landscape.

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ICOMOS considers that this criterion has been justified.

*Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance;*

This criterion is justified by the State Party on the grounds that the Baroque notion of creating the world's tallest fountain inspired Landgrave Carl of Hesse-Kassel to commission Denis Papin to construct a steam pump. This was a direct precursor of the later atmospheric steam engines by Thomas Newcomen and James Watt, in themselves technical prerequisites of the Industrial Revolution.

ICOMOS considers that there is no direct or tangible association of Bergpark Wilhelmshöhe with the Industrial Revolution because Papin's steam pump was never used there.

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ICOMOS considers that this criterion has not been justified.

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ICOMOS considers that the nominated property meets criteria (iii) and (iv) and conditions of authenticity and integrity.

#### **Description of the attributes**

The attributes carrying Outstanding Universal Value are essentially the water features and the landscape's topography which enables their unique integration into a masterly display. Individual components include the Hercules Monument (statue, pyramid and octagon),

Vexing Grotto, Artichoke Basin, Felsensturz Waterfall, Giant's Head Basin, Grand Cascade and basins, Neptune's grotto and basin, the Grand Fountain and its pond, and the associated statues, acoustic devices, fountains, water catchment, reservoirs, ponds, wells, ditches, tunnels, valves, pipes; Aschgraben channel, Steinhöfer Waterfall, Devil's Bridge Waterfall, Aqueduct Waterfall, Peneus Cascades, Jussow Waterfall, Isle of Roses waterfalls, the Lac, the New Waterfall and all associated water sources, valves, channels, pipes, reservoirs; the east-west axis to Kassel city, park setting including plantings and paths, garden buildings, Palace, Löwenburg Castle, views and vistas.

## **4 Factors affecting the property**

According to the nomination dossier there are 61 permanent inhabitants of the property and 3,337 in the buffer zone, but it is stated that the property is not threatened by development.

The water features can be viewed twice a week from May to October, attracting an average attendance of 5,000 visitors. Attendance at major events in the Bergpark is capped at 15,000. Annual visitor numbers to the park overall vary between 250,000 and 700,000 – the latter being the year of the major art exhibition held at the Bergpark. It has been calculated that the park could accommodate 1,000,000 visitors annually. Consequently visitor pressure is not considered a threat.

Climate change has had an impact in reducing snowfall and therefore the natural water capacity of the catchment supplying the water displays, to the extent that during very hot summers the water displays have had to be reduced for the rest of the season or even ceased altogether. In response to ICOMOS' request for additional information about this, the State Party responded that the lack of water was primarily due to leakage or pipe bursts and that since these have been repaired there is sufficient water to operate the displays in accordance with the schedule described. Storms and fires are not expected to affect the property.

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ICOMOS considers that the main threats to the property are climate change and associated loss of water supply. Storms and fires could become more of a threat with climate change also.

## **5 Protection, conservation and management**

### **Boundaries of the nominated property and buffer zone**

The boundary of the nominated property follows the boundary of the property designated under the Hessian Act on the Protection of Cultural Monuments and the boundary of the property owned by the Museumslandschaft Hessen Kassel except to the west

where it also includes additional land covering the water catchment supplying the water features of the Bergpark. There is no visible border separating the park from its surrounding buffer zone. The boundary is not fenced.

The buffer zone boundary includes landscape protection areas and special conservation areas (fauna-flora-habitat) which surround the property to the north and west. On the southern side it includes built up areas to the immediate south and special conservation areas (fauna-flora-habitat) beyond. To the east the buffer zone covers the 20 m wide axis of Allee Wilhelmshöher to the centre of the City of Kassel. In response to ICOMOS' request, the State Party has extended the buffer zone to include the urban blocks either side of the Wilhelmshöher Allee monumental axis to a minimum building depth of 25 m either side of the Allee as shown in Map 2 of the appendix to its additional information.

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ICOMOS considers that the boundaries of the nominated property and of the extended buffer zone are adequate.

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#### **Ownership**

The property is owned by the Federal State of Hesse.

#### **Protection**

The nominated property is protected by laws of the Federal Republic of Germany including the Regional Planning Act, Town and Country Planning Code, Federal Nature Conservation Act, the Environmental Impact Assessment Act, and the Federal Forest Act, as well as by the laws of the Federal State of Hesse including the Act on the Protection of Cultural Monuments since 1974, the Hessian State Planning Act, Hessian Forest Act, the Hessian Act on the Implementation of the Federal Nature Conservation Act, and the Hessian building regulations.

The protection measures are considered to be effective. In response to ICOMOS's query regarding extension of Cultural Monuments protection to the water catchment to the west, which includes the man-made ponds and ditches supplying water to the water features, the State party has advised that in accordance with its review of the matter this area has now been protected by the Hessian Act on the Protection of Cultural Monuments as shown on Map 1 in the appendix to the additional information.

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ICOMOS considers that the legal protection currently in place is effective, and the legal protection is adequate.

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#### **Conservation**

The digital catalogue maintained by the Museumslandschaft Hessen Kassel provides a record of the state of preservation of all the historic structures and vegetation in the Bergpark as well as past and current repair projects. A list of the latter from 1945 to 2006 is included in the nomination dossier, as well as the current works program from 2006 to 2015 which includes the water supply catchment.

Detailed information on the currently active conservation program was provided by the State Party in response to ICOMOS' request. This covers repairs to the Hercules monument, including internal fixings to hold the statue's supporting armature to the pyramid and particular attention to repairing, pointing and pinning the tuff stone facings of the Octagon's core structure, which has itself required grouting to fill cavities caused by water ingress. In some cases (new stairs and floor platforms), an artificial tuff stone made using 60% of tuff off-cuts from ashlar production together with natural additives and pigments has been used in order to conserve limited resources of natural tuff. The structure has been stabilised also by insertion of a stainless steel ring at second floor level with straps tying back to the internal columns. At present the Artichoke Basin is closed while repairs are undertaken to the stone facings of the grottos and vaults. Other work includes the sealing of joints in water features and channels to prevent water loss. As part of the current works program the area around the Hercules Monument has received a new visitor centre and car-parking. Paths are being re-laid according to the layout shown in the Virchow Plan of 1903.

The property has received consistent care and maintenance under State management since 1927. ICOMOS finds that the conservation measures taken are adequate and effective.

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ICOMOS considers that conservation measures are adequate and effective.

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#### **Management**

Management structures and processes, including traditional management processes

The Hessian Ministry of Higher Education, Research and Art is responsible for the Bergpark Wilhelmshöhe with its water features and the Hercules Monument. The Museumslandschaft Hessen Kassel (MHK) is responsible for the general local management of the Bergpark Wilhelmshöhe including the Sichelbach reservoir, Sichelbach creek and Aschgraben, and covers public relations, presentation, study, conservation, restoration and visitor management. The woods and open spaces of the water catchment areas of the Habichtswald are managed by the Hessen-Forst State Forestry Administration, Wolfhagen forestry office, covering administration, maintenance and management of these areas. The National Heritage Council provides consultation and assistance to the Hessian Ministry of Higher Education, Research and Arts in principal matters of monument protection and preservation. Coordination of these agencies is ensured through the Co-operation Agreement made between the State of Hesse and the City of Kassel in 2007 which established a Steering Committee comprising representatives of the Ministry, the City of Kassel, the Museumslandschaft and Kassel County and served by a Steering Board, which is a panel of experts that appoints specialised task groups as required, one of these being the World Heritage Working Group. The

World Heritage Hesse Staff Unit within the Hessian State Office for the Preservation of Historical Monuments works with the World Heritage Working Group and Advisory Board.

The Bergpark has its own maintenance facilities and is staffed by the Department of Gardens and Garden Architecture within the Museumslandschaft including well-qualified and trained engineers, trades people and gardeners. A structural engineer with additional qualifications in monument protection was appointed in January 2012, and two qualified masons are available. It is proposed that a specialist 'shed' (*Bauhütte*) will be set up to focus on the maintenance of the Hercules Monument and large structures made of tuff.

Financial resources are allocated by the State of Hesse and are considered adequate.

The State party has provided additional information on risk preparedness in response to ICOMOS' request and has stated that the management plan will be extended to include the necessary risk preparedness measures.

Policy framework: management plans and arrangements, including visitor management and presentation

The Bergpark is considered as a protected complex in the Regional Plan North Hesse 2009, and as having recreational value within a pristine environment. The City of Kassel's Urban Development Concept (2006) considers improvement of the traffic situation around the Bergpark; finalisation of the Wilhelmshöher Allee's periphery as a boulevard; and closure of certain roads through the park.

The Management Plan for the Water features and Hercules within the Bergpark Wilhelmshöhe was prepared in 2008-2010 jointly by representatives of the State of Hesse, the city and county of Kassel, and citizens' representatives. Its implementation is the responsibility of the Steering Committee. It focuses on protection and preservation of the monuments, garden buildings, natural resources, views and vistas; and sustainable tourism and public use. Considerable attention is given to identification of lost or obscured views and vistas, and proposals for the restoration of these are included. Visitors can arrive via the new visitor centre at the upper end of the Bergpark near the Hercules Monument, or via the one in the Tramway station at the lower end towards the city of Kassel. There are car parks at each. From these visitors access the park via a network of 45km of historical pathways. All access paths have signs showing the park rules. A shuttle bus running outside the park connects the upper and lower visitor centres with the City of Kassel. Elderly or disabled visitors and families with children under six can use an electric mini bus within the park. In addition 300 tour buses annually are scheduled to travel through the Bergpark with an onboard visitor guide.

Involvement of the local communities

ICOMOS notes that local citizens are involved through an association named Verein Bürger für das Welterbe e. V., which is represented on World Heritage Workshops, the Advisory Board and the World Heritage Working Group. According to the additional information provided by the State Party, residents in the buffer zone are consulted on all planning matters relating to the Bergpark.

ICOMOS considers that management is effective and notes that the State party has provided additional information on risk preparedness measures in the event of storms and fires, to be included in the management plan.

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In conclusion, ICOMOS considers that the management system for the property is adequate.

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## 6 Monitoring

Key indicators have been identified to allow evaluation of the state of conservation of the water course, water catchment areas, Hercules monument, overall features in the Bergpark and tourism development. Annual reports are submitted by the relevant institutions to the World Heritage Hesse Staff Unit for action, and are archived by the Museumslandschaft Hessen Kassel. Results of previous reporting exercises are included in the nomination dossier.

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ICOMOS considers that the monitoring system is adequate.

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## 7 Conclusions

ICOMOS considers that the nominated property meets criteria (iii) and (iv) and conditions of integrity and authenticity and that Outstanding Universal Value has been demonstrated. ICOMOS also considers that the water features in Kassel are part of a unique manmade, designed Cultural Landscape, completely without borders integrated in an evolved landscape. The main threat to the property is climate change and consequent shortage of water, and possibly increased storms and fires. The boundaries of the property are adequate, and the buffer zone boundary is adequate with the inclusion of the urban blocks either side of the Wilhelmshöher Allee monumental axis in accordance with Map 2 provided in the State party's additional information. The legal protection in place is adequate with the inclusion of the water catchment in the area covered by the Hessian Act on the Protection of Cultural Monuments as shown in Map 1 of the additional information provided by the State party. According to this additional information the Management Plan will be extended to include risk preparedness measures. In response to ICOMOS' request, the State Party has agreed to change the name of the nominated property to become: "Bergpark Wilhelmshöhe".

## 8 Recommendations

### Recommendations with respect to inscription

ICOMOS recommends that the Bergpark Wilhelmshöhe, Federal Republic of Germany, be inscribed on the World Heritage List as a cultural landscape on the basis of **criteria (iii) and (iv)**.

### Recommended Statement of Outstanding Universal Value

#### Brief synthesis

Inspired by the dramatic topography of its site, the Hercules monument and water features of the Bergpark Wilhelmshöhe created by the Landgrave Carl from 1689 combine in an outstanding demonstration of man's mastery over nature. The monumental display of rushing water from the Octagon crowned by the massive Hercules statue via the Vexing Grotto and Artichoke Basin with their hydro pneumatic acoustic effects, Felsensturz Waterfall and Giant's Head Basin down the Baroque Cascade to Neptune's Basin and on towards the crowning glory of the Grand Fountain, a 50 metre high geyser that was the tallest in the world when built in 1767, is focused along an east-west axis terminating in the centre of the city of Kassel. Complemented by the wild Romantic period waterfalls, rapids and cataracts created under Carl's great-grandson the Elector Wilhelm I, as part of the 18<sup>th</sup> century landscape in the lower part of the Bergpark, the whole composition is an outstanding demonstration of the technical and artistic mastery of water in a designed landscape. Together with the 11.5m high bronze Hercules statue towering above the park and visible from many kilometres, which represents an extraordinary sculptural achievement, they are testimony to the wealth and power of the 18<sup>th</sup> & 19<sup>th</sup> century European ruling class.

**Criterion (iii):** The towering statue of Hercules and the water displays of the Bergpark Wilhelmshöhe are an exceptional symbol of the era of European Absolutism.

**Criterion (iv):** The water displays of Bergpark Wilhelmshöhe are an outstanding and unique example of monumental water structures. Cascades of similar size and artificial waterfalls of comparable height can be found nowhere else. The Hercules statue, towering over the 560 hectare park, is both technically and artistically the most sophisticated and colossal statue of the Early Modern era. The ensemble of water features with their monumental architectural settings is unparalleled in the garden art of the Baroque and Romantic periods.

#### Integrity

The nominated property includes all elements necessary to express its values and does not suffer from adverse effects of development or neglect. All water features except the New Waterfall are still operable and together with the Hercules Monument preserve their visual integrity and setting.

#### Authenticity

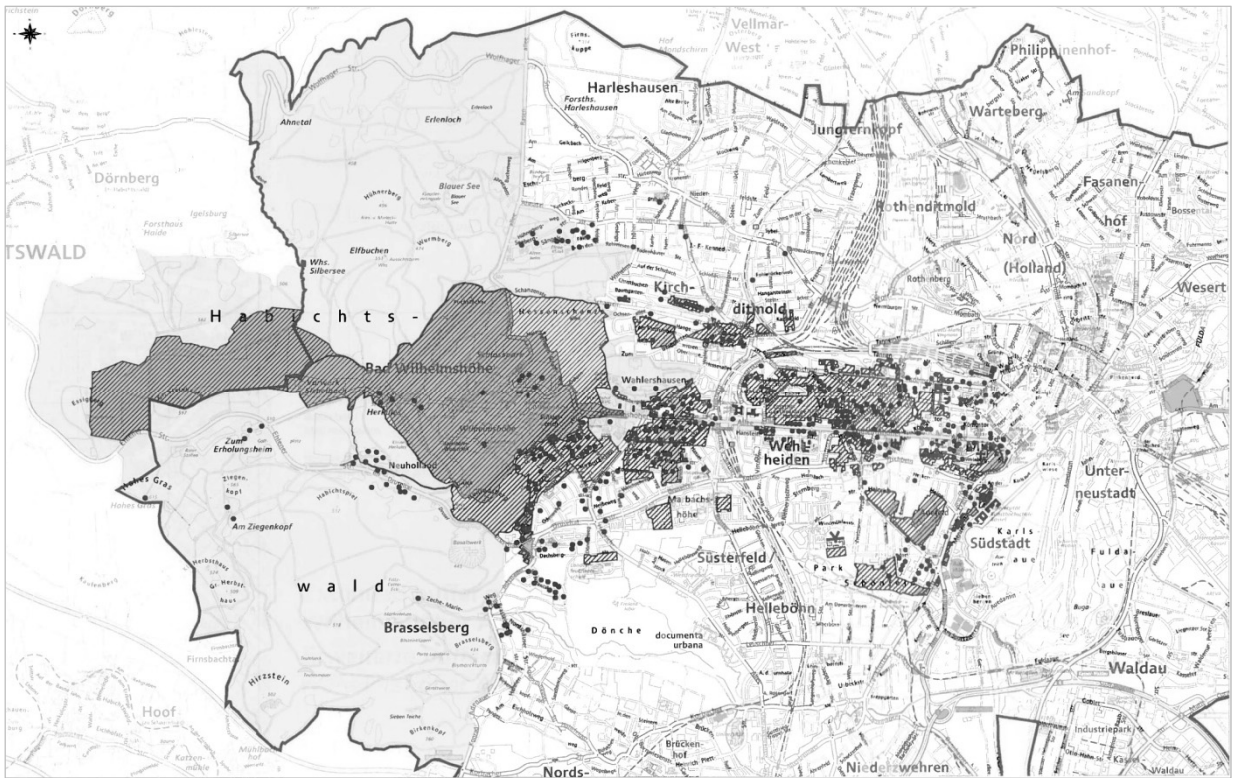
The nominated property is authentic in terms of its form and design, materials and substance, use and function, techniques, location and setting. The technology required for the water features has been preserved, complete and functional.

#### Management and protection requirements

The property is protected by laws of the Federal Republic of Germany including the Regional Planning Act, Town and Country Planning Code, Federal Nature Conservation Act, the Environmental Impact Assessment Act, and the Federal Forest Act, as well as by the laws of the Federal State of Hesse including the Act on the Protection of Cultural Monuments, the Hessian State Planning Act, Hessian Forest Act, the Hessian Act on the Implementation of the Federal Nature Conservation Act, and the Hessian building regulations. The property is protected in its entirety by the Hessian Act on the Protection of Cultural Monuments. The property is managed under the direction of a Steering Committee comprising representatives of the Hessian Ministry of Higher Education, Research and Arts, the City of Kassel, the Museumslandschaft and Kassel County and served by a Steering Board, which is a panel of experts that appoints specialised task groups as required to work with the World Heritage Hesse Staff Unit within the Hessian State Office for the Preservation of Historical Monuments. The woods and open spaces of the water catchment areas of the Habichtswald are managed by the Hessen-Forst State Forestry Administration, Wolfhagen forestry office.

The Bergpark is considered as a protected complex in the Regional Plan North Hesse 2009, and as having recreational value within a pristine environment. According to the City of Kassel's Urban Development Concept (2006) the traffic situation around the Bergpark will be improved, Wilhelmshöher Allee's periphery will be finalised as a boulevard and certain roads through the park will be closed. The Management Plan for the Water features and Hercules within the Bergpark Wilhelmshöhe, prepared in 2008-2010 jointly by representatives of the State of Hesse, the city and county of Kassel, and citizens' representatives is being implemented by the Steering Committee and focuses on protection and preservation of the monuments, garden buildings, natural resources, views and vistas, sustainable tourism and public use. Local citizens are involved in working groups and residents in the buffer zone are consulted on all planning matters relating to the Bergpark. Management will be improved by inclusion of a risk preparedness strategy.





Map showing the revised boundaries of the nominated property



Hercules Monument and Grand Cascade



Wilhelmshöhe Palace



Aqueduct and Peneus Cascades



Grand Fountain and Fountain pond