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Pedestrian Ring Bridge

James Carpenter

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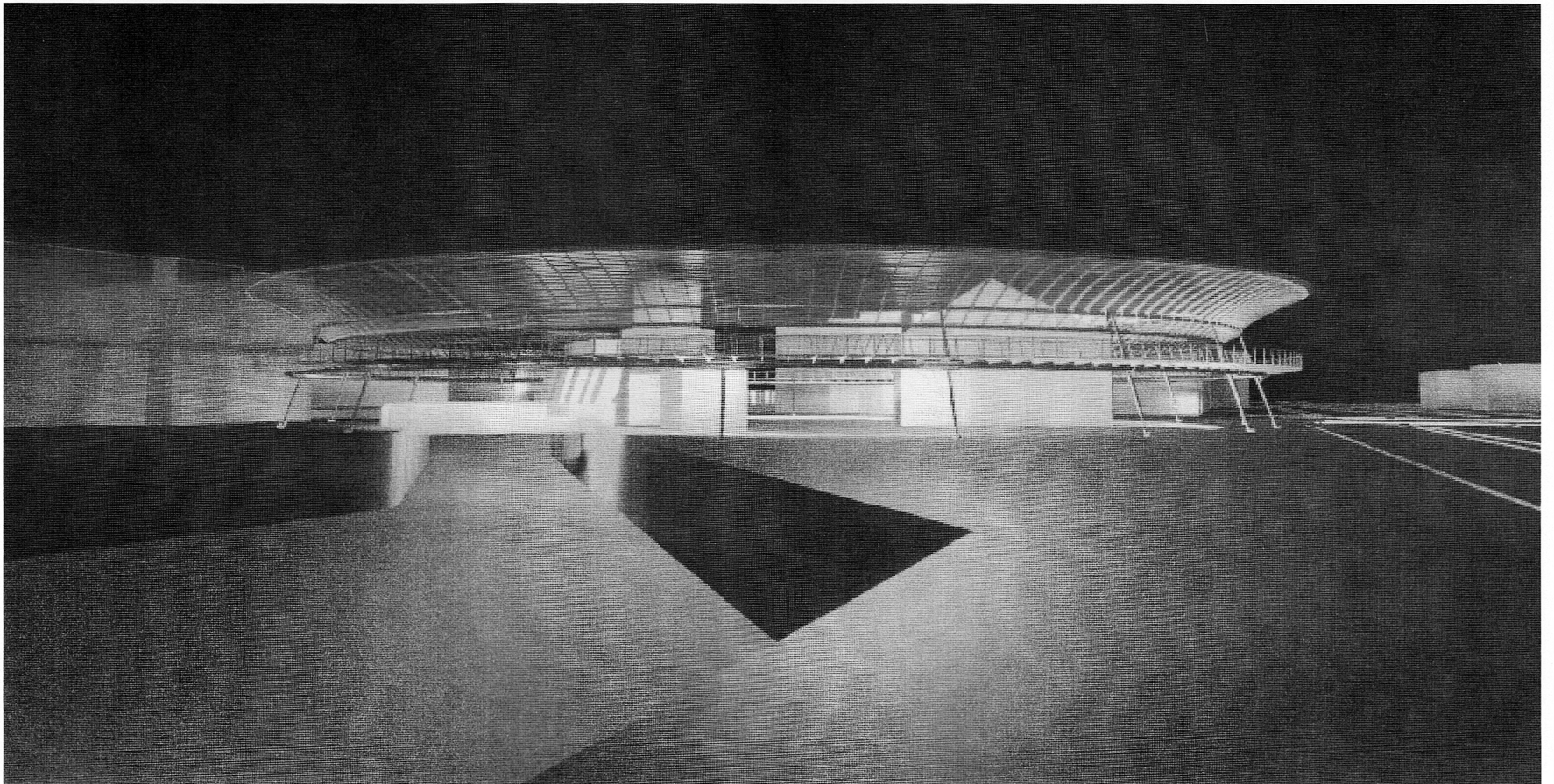
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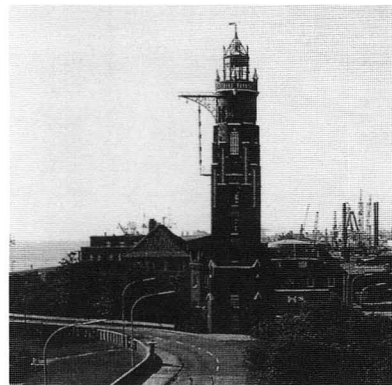
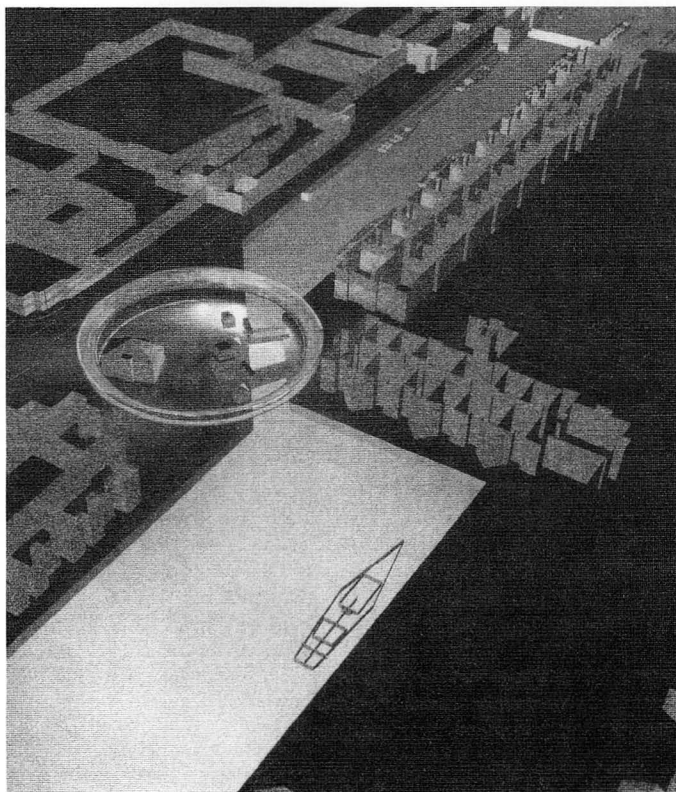
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James Carpenter



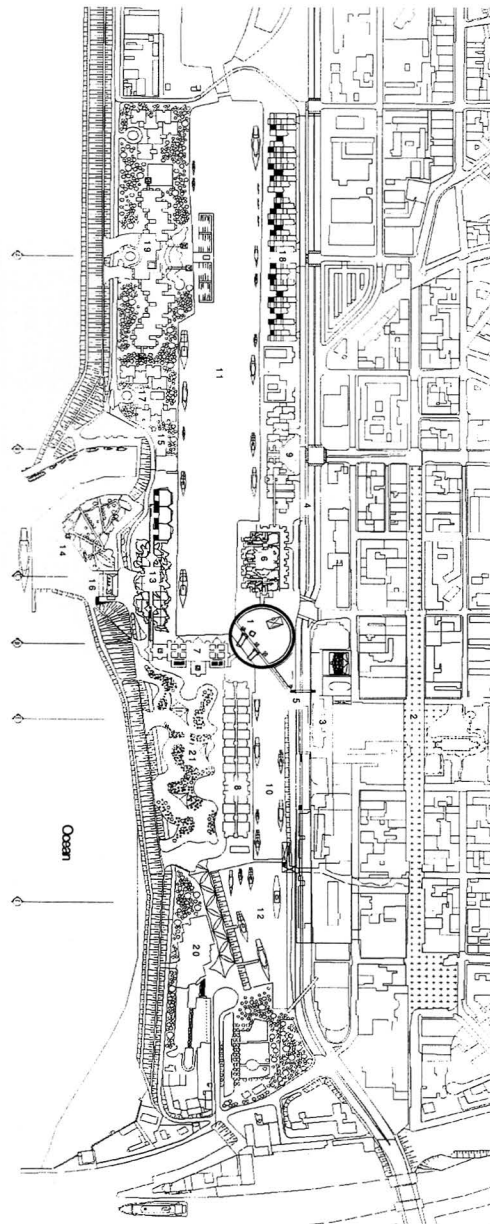


Historic Structure at Inner Harbor

A key seaport for over 150 years, Bremerhaven, Germany provides an important gateway to Europe and overseas. Founded in 1827 with a current population of 130,000, Bremerhaven is rapidly developing from a commercial and industrial center to a cultural and recreational maritime center. At a 50 km distance from the city of Bremen, the Bremerhaven port is accessible by all forms of transportation. Bremerhaven is Europe's largest fishing and container shipping port as well as Europe's largest port for the transshipment of automobiles. Modernization of port facilities has meant that the old dock side areas have become available for redevelopment as a major leisure complex for the North German region. This quay side site has become a catalyst for the revitalization of the city center area.

The Pedestrian Ring Bridge establishes a focus for the 150-acre quay side redevelopment project at the site of the town's founding in the center of Bremerhaven. Linking the main pedestrian shopping precinct of the Burgermeister Schmidt Strasse to the park lands around the Weser dike, the proposed pedestrian bridge frames and circumscribes a zone that contains historically significant landmark buildings.

The inner harbor area defines the city's northwestern edge and creates a barrier between existing dikes, park lands, and public facilities like the zoo, along the ocean side. The new proposed buildings, including aquariums, museums,



Redevelopment Plan

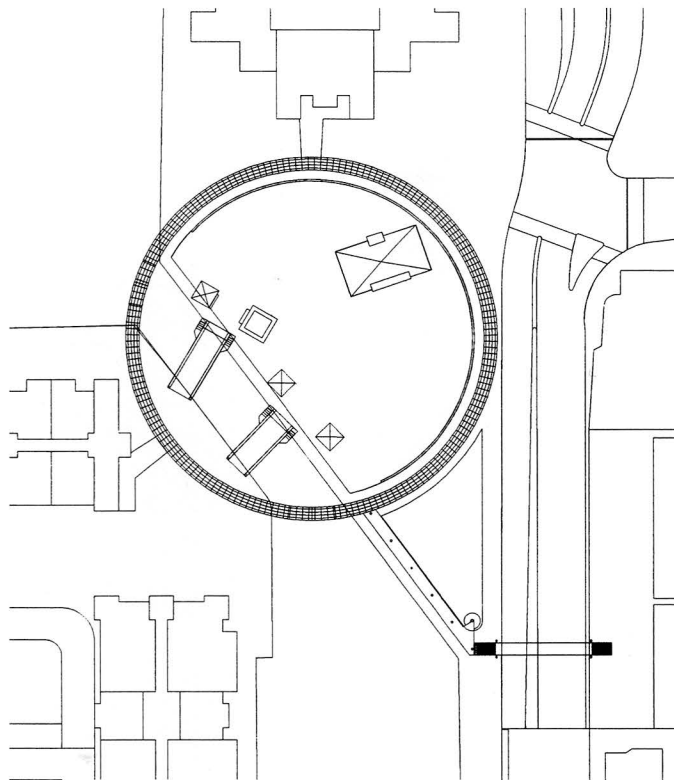


Aerial View of Redevelopment Area

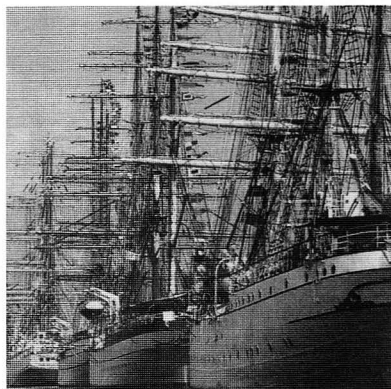
theaters and public parks, cluster around the proposed Pedestrian Ring Bridge. Columbstrasse, a main artery to the northeast, virtually cuts off all pedestrian traffic from the Burgermeister Schmidt Strasse and Columbus Center mall to the inner harbor and Bremerhaven maritime and park land activities. In addition, the current height of the dikes limits pedestrian view to the ocean from the city.

The overall development program creates opportunities for activities on and around the water, strengthening the existing economic base commercially, recreationally and culturally. The program emphasized that the bridge design address the water side character of the town, in particular the port activities, shipyards and shipping program, as well as provide an element to emphasize and enhance the life of the city center. Although originally designed with an operable lift bridge over the canal, the current conception of the bridge provides for a continuous walkway and canopy with no operable sections. As the central element in the program, providing a link between various aquarium buildings, theaters, and a new town museum in one of the historic structures, the Pedestrian Ring Bridge knits the redevelopment project together and becomes a poetic organizing device and a civic landmark for the city.

The Pedestrian Ring Bridge links the shopping district to the east with the major public facilities along the harbor,



Site Plan



Bremerhaven Inner Harbor

establishing second level pedestrian circulation with access to major activities and stairways to park lands. The second level walkway of the Pedestrian Ring Bridge allows for views over the dike to the ocean and bridges both the canal of the inner harbor and the vehicular traffic of the Columbstrasse, linking the shopping district to the new redevelopment complex.

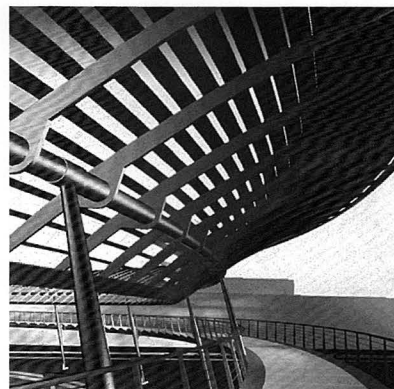
The bridge and its canopy become a powerful device for guiding and framing views and heightening one's perception of this historical ship building site. The light washed sails of the canopy create an evocative image of regional identity, and the interior space created by this luminous and translucent structure within the historic urban fabric suggests its unique potential for gathering people for performances and the possibility of a public forum. The bridge's theatrical atmosphere frames everyday scenes of harbor life as well as spectacles, modulating different social uses.

Through modulation of light, this design establishes the presence of a floating ring of light during the day and night, creating an appropriate architectural intervention to play against both the existing historical buildings and the newly proposed aquarium tent structures. At the tactile and experiential scale, the generous promenade creates a threshold of ambient colored light at ground level as well as allowing pedestrian on the walkway to be seen against a luminous curved band of light.

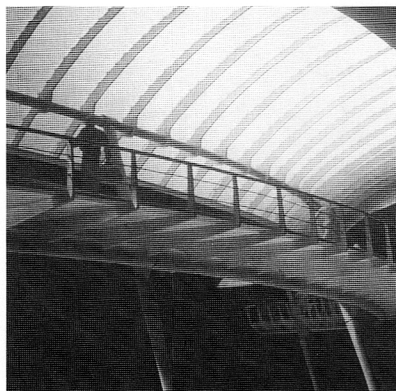
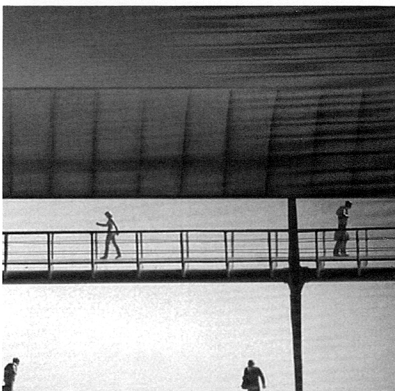


The translucent ring structure of 43 meter radius incorporates 18 steel masts connected by a steel torsion tube which simply supports a diffused color glass walkway 5 meters above ground and a canopy of coated glass cloth.

The basic elements of the construction system are twenty identical prefabricated circular sector elements linked by a stiff torsion tube. The painted tubular steel inclined masts rest on pile foundations and are attached to the torsion tube by a cast metal component. A tubular torsion tube spans the canal of the harbor 28m and connects the supporting masts. The radial bracket fins cantilever the torsion tube to support a glass and concrete deck. The deck is divided into manageable glass planks 27 per sector between the supporting brackets with a precast concrete lip edge internally and externally. The fabric canopy is light weight PTFE coated glass cloth with 15% translucency and is stretched over a metal armature.



The cities of Bermen and Bremerhaven held a Request for Qualifications in late 1994 and selected a developer/architect team from 190 submissions to develop a master plan and program for the site. The developer/architect provided for a pedestrian bridge as a circulation device for the new complex of buildings, and commissioned this design to become the focal element between private investors and public funds. The Pedestrian Ring Bridge is designated as a public park with the only constraint being to preserve landmark buildings.



Project Team: Richard Kress, James Carpenter, Janet Fink, Luke Lowings, Erik Schultz and Rebecca Uss.

Construction commences July 1996, with completion scheduled for 1999.