



## ((الحلول المنشئية وجماليات الجسور المعاصرة ))

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### **Abstract :-**

In recent years, bridges became one of the most difficult achievements and most accurate in terms of design, it's used to pass over, or to enjoy the surrounding scenery, some got its importance for its history and some for the changes it made to certain area, in addition to the high technology used in others in which it became a symbol to the development and technology of that specific area.

The structural systems helped to achieve connection and allowed them to extend to unbelievable distances.

This role played by Bridges grew attention to these structures and made them Special to its designers and users not only for its structural engineering but for its architecture too.

As a result of this distinction it became necessary to study their Aesthetic impacts on its surrounding in general and on the receiver in particular.

Therefore, studies on the bridges aesthetics and its artificial considerations have increased, as it became a need as well as a symbol within open spaces.

The designer would deal with a several optical elements during the designing process, which would be chosen with high accuracy to create a piece of art that fits the expandable vital role, in addition to applying the functional limitations of the design.

The research approaches the definition of Aesthetics in bridges and demonstrates the world wide applied concepts related to the subject to define some Hypothesis testing vocabulary, the research also

concluded a general rule that (Aesthetics cannot be separated from structure in bridge design because Aesthetics in all applied concepts is (a concept of form, architectural and artificial structure).

كلمات رئيسية :-

الجسور ، عمارة الجسور ، هندسة الجسور ، جماليات الجسور ، المستوى الأنشائي للجسور

مشكلة البحث :-

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 ( Visible Feature )  
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 -: (*Bridge Aesthetics*)

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 ( Moon , p 738 ) (Ibid. p2) .  
 ( Leonhardt , 1984 , p 31 )

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(Mock,1949,p7)

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( Bennett , 1997 , p6 ) (

( Mock , 1949 , p7 ) ((  
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Menn ,1991 , p ) (( . - . ( Firmness ) - :  
( 40 Delight ) ( Commodity )  
. ( Aesthetics ) ( Wadowski , 1971 , p15 )  
( ) ( Le Corbusier )

- :  
( Expressiveness ) -  
( Symmetry ) - Le Corbusier , 1970 , p 36 )  
( Simplicity ) - Nervi ( )  
( Harming & contrast ) - ( Statical )  
( Nervi , 1956 , p15 ).  
) - : Elizabeth Mock  
( Taly , 1998 ,p1226, 1229 )

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<http://www.galinsky.com/buildings/gatesheadbridge/index.htm>

Jim Eyre

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[http://en.wikipedia.org/wiki/Gateshead\\_Millennium\\_Bridge](http://en.wikipedia.org/wiki/Gateshead_Millennium_Bridge)

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( Hart,2004,p279 )

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<sup>1</sup> Jim Eyre :- شريك في شركة Wilkinson Eyre للعمارة ، وهي شركة اعيد تجديدها بسبب تصاميم جسورها الراقية . ( Hart,2004,p279 )

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. ( Charleson , 2005,p132 -133 ).

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(Charleson , .

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Frampton , 1995 , p 227 ) ((

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<sup>2</sup> البرجمة ( Knuckle ) :- احدى البراجم وهي مفاصل الاصابع او العظام الصغيرة في الأيدي والارجل . ( البعلبي ، ١٩٨٥ ، ص ٥٠٦ )



( Potyandy, 1969 , P 28 )

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(Ibid., p 151-156)

Ruskin ( - )

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(Artistic Bridge Design)

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(( without constructing decoration

( Taly , 1998 ,p 1221 )

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( Menn,1991 , p 15 , 31 ) ( -

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Thomas ( Gottemoeller , 2004,p 49)

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Chen,& Duan )

( ,2000

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( Gottemoeller , 2004,p 49)

( Gauvreau ,2003, p2 )

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<sup>3</sup> Thomas Telford - هو مهندس بريطاني ، وكان اول من اشار الى الفن المنشئي عام ١٨١٢ ( Billington , 1983 , p 5 )

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( Billington , 1983 , p 5 ) .

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( Gauvreau ,2003, p1)

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( Berk,2005,p 51)

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(Gauvreau ,2003 , p4, 5) .

(Gottemoeller , 2004 ,p8,9,10,44)





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( Zuk ,1995 )

Gauvreau ) .

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(,2003 , p7

( Gauvreau ,2003, p1 )

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Berk , 2005 , )

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Patrik Zaha Hadid -:

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<sup>6</sup> Patrik Schumacher -: احد شركاء شركة زهاء حديد

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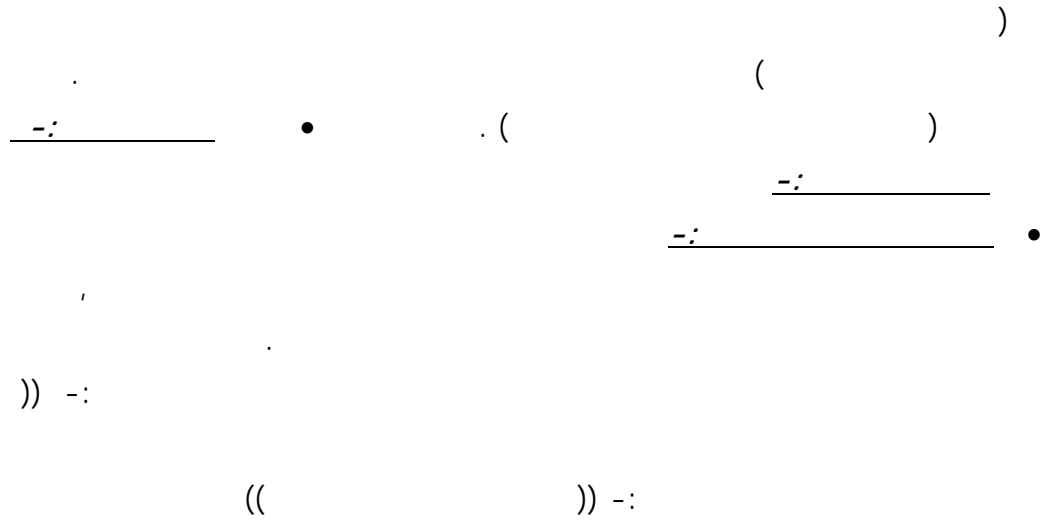
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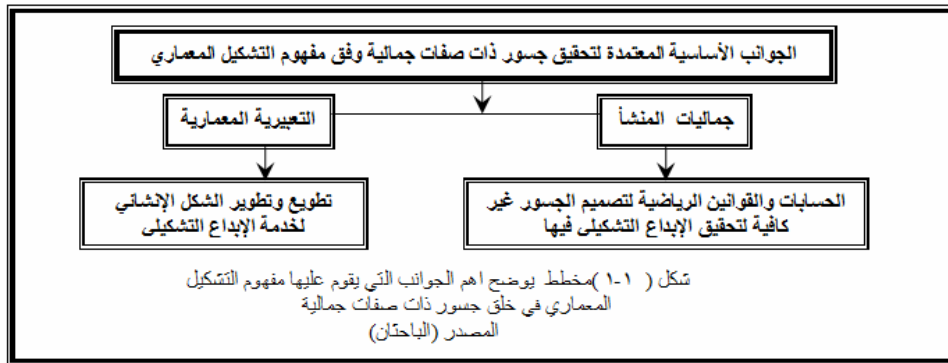
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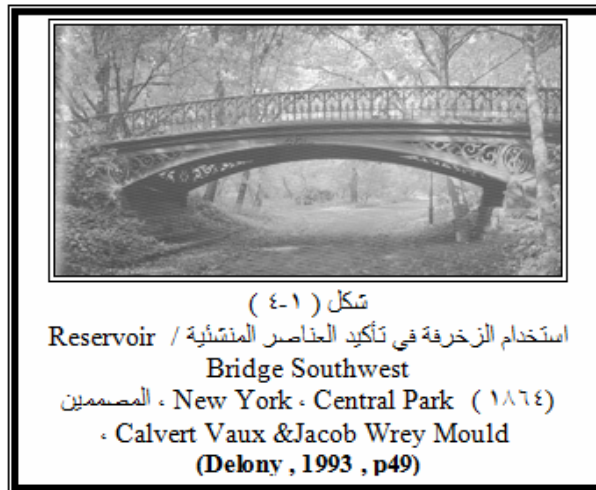
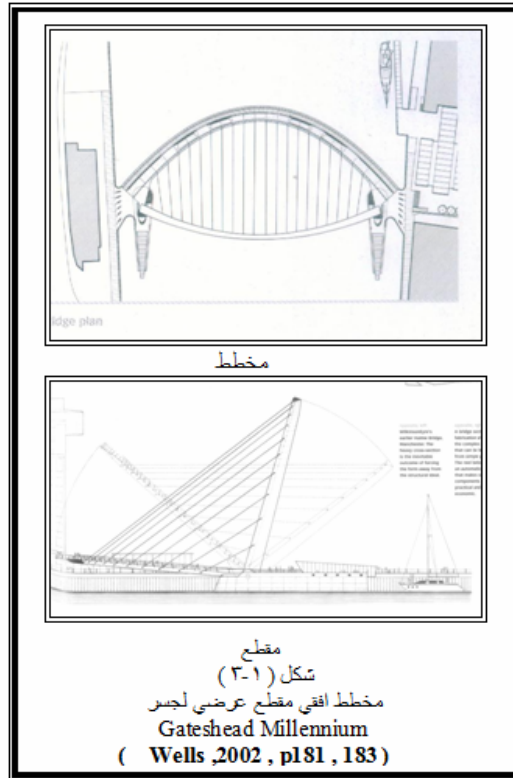
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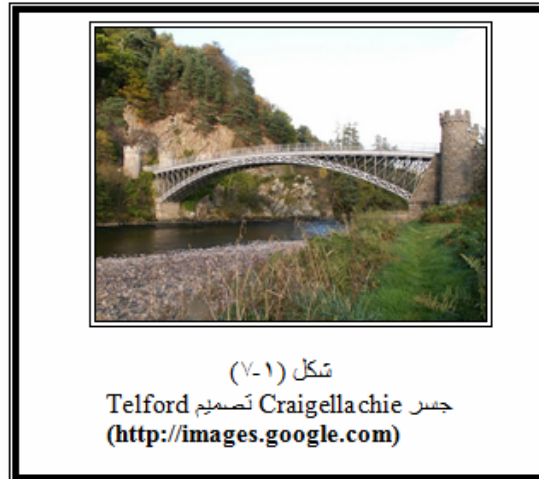
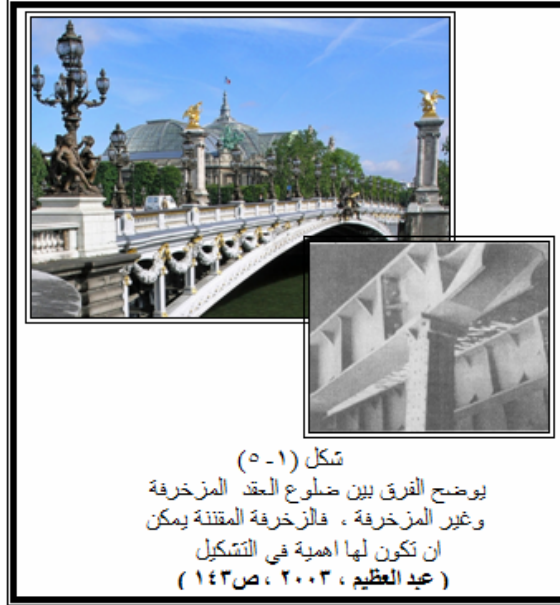
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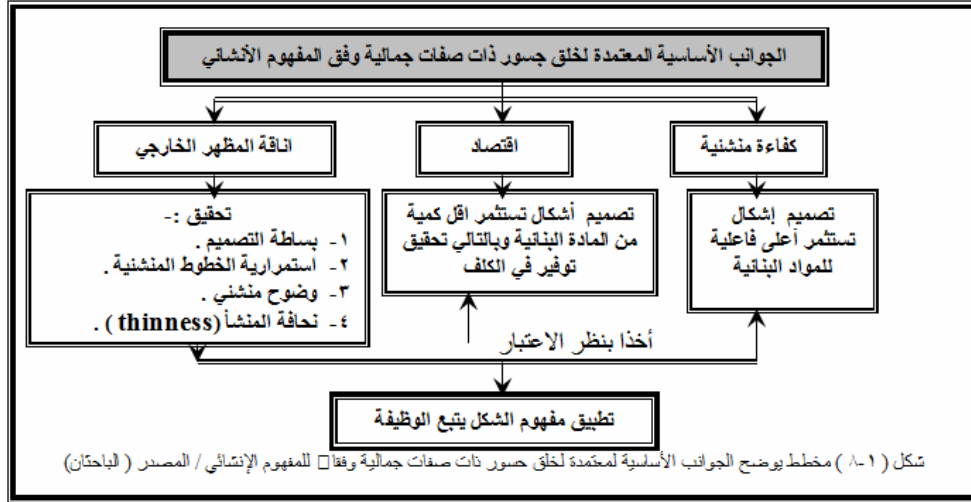


شكل ( ٢-١ )

جسر Gateshead Millennium ، تصميم مشترك بين شركتي WilkinsonEyre Architects و Gifford & Partners ، بمشاركة المعماري Keith Brownlie (<http://images.google.com>)







شكل (٩-١)

جسر / Pont de la Tournelle / باريس  
( Gauvreau ,2003,p3 )

