# SOURCES FOR BRIDGE PROFILE PAGE

## Week 1: The Origins of Structural Art

**Bonar Bridge**
Art of Structural Engineering, Week 1: The Origins of Structural Art
Historic Environment Scotland website, Scotland's Places, accessed November 2015. http://www.scotlandsplaces.gov.uk/record/rcahms/14053/bonar-bridge-telford-bridge/rcahms?inline=true
Image: "Bonar Bridge over the Dornoch Firth" courtesy of "The Tower and the Bridge: The New Art of Structural Engineering" © David P. Billington

**Britannia Bridge**
Art of Structural Engineering, Week 1: The Origins of Structural Art
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Britannia Tubular Bridge, Menai Straits, Wales, 1850." by George Hawkins © Science Museum / Science & Society Picture Library

**Buildwas Bridge**
Art of Structural Engineering, Week 1: The Origins of Structural Art
Image: "Buildwas Bridge" courtesy of studyblue.com

**Clifton Bridge**
Art of Structural Engineering, Week 1: The Origins of Structural Art
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Clifton Suspension Bridge" by Ben Salter is licensed under CC BY 2.0

**Craigellachie Bridge**
Art of Structural Engineering, Lecture 2: British Metal Forms
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Craigellachie Bridge Autumn33" by Stuart Gordon is licensed under CC BY-ND 2.0

**Firth of Forth Bridge**
Art of Structural Engineering, Week 1: The Origins of Structural Art
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Forth Bridge, Scotland" by David McKelvey is licensed under CC BY-NC-ND 2.0

**Iron Bridge**
Art of Structural Engineering, Week 1: The Origins of Structural Art

Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Iron Bridge - Shropshire" by David Evans is licensed under CC BY 2.0

**Maidenhead Bridge**
Art of Structural Engineering, Week 1: The Origins of Structural Art
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/maidenhead-railway-bridge
Image: "Brunel's Railway Bridge at Maidenhead" by Stephen Daglish is licensed under CC-BY-SA-2.0

**Menai Bridge**
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Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "The Menai Suspension Bridge" by bvi4092 is licensed under CC BY 2.0

**Mythe Bridge**
Art of Structural Engineering, Week 1: The Origins of Structural Art
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015.http://structurae.net/structures/mythe-bridge
Image: "Mythe Bridge and the River Severn" by Philip Halling is licensed under CC BY-SA 2.0

**Pontcysyllte Aqueduct**
Art of Structural Engineering, Week 1: The Origins of Structural Art
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/pontcysyllte-aqueduct
Image: "Snapshots of The Past" by Pontycisylltan Aqueduct Llangollen Wales is licensed under CC BY-SA 2.0

**Saltash Bridge**
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## Week 2: John Roebling and the Brooklyn Bridge

**Brooklyn Bridge**
Art of Structural Engineering, Week 2: John Roebling and the Brooklyn Bridge
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Brooklyn Bridge" by Rob Speed is licensed under CC BY 2.0

**Cincinnati Bridge**
Art of Structural Engineering, Week 2: John Roebling and the Brooklyn Bridge

Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "John A. Roebling Bridge" courtesy of David Billington

**Delaware Aqueduct**
Art of Structural Engineering, Week 2: John Roebling and the Brooklyn Bridge
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/delaware-aqueduct-bridge
Image: “Delaware Aqueduct”/ Public Domain

**Niagara River Bridge**
Art of Structural Engineering, Week 2: John Roebling and the Brooklyn Bridge
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "The Niagara Railway Arch" by Richard Buck / Public Domain

**Week 3: Othmar Ammann and the Bridges of NYC**

**Bayonne Bridge**
Art of Structural Engineering, Week 3: Othmar Ammann and his Bridges of NYC
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Bayonne Bridge" by Laser Burners is licensed under CC BY-NC-ND 2.0

**Bronx-Whitestone Bridge**
Art of Structural Engineering, Week 3: Othmar Ammann and his Bridges of NYC
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: “Bronx-Whitestone Bridge” courtesy of MTA

**George Washington Bridge**
Art of Structural Engineering, Week 3: Othmar Ammann and his Bridges of NYC
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: “George Washington Bridge” courtesy of Kristine Paulus / Flickr / Public Domain

**Hell Gate Bridge**
Art of Structural Engineering, Week 3: Othmar Ammann and his Bridges of NYC
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/hell-gate-bridge
Image: "Hell Gate Bridge" / Public Domain

**Severn River Bridge**
Art of Structural Engineering, Week 3: Othmar Ammann and his Bridges of NYC
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: **"Severn River" © Leonhardt Brücken - Bridges**

**Tacoma Narrows Bridge**
Art of Structural Engineering, Week 3: Othmar Ammann and his Bridges of NYC
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "First Tacoma Narrows Bridge, 1940" © Library of Congress / Science Photo Library

**Verrazano Narrows Bridge**
Art of Structural Engineering, Week 3: Othmar Ammann and his Bridges of NYC
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Verrazano-Narrows Bridge" courtesy of Wayman Williams

**Week 4: The Golden Gate Bridge**

**Golden Gate Bridge**
Art of Structural Engineering, Week 4: The Golden Gate Bridge
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Golden Gate Bridge in 1937" / Public Domain

**Week 5: Robert Maillart and Concrete Bridges**

**Aarburg Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/aarburg-bridge
Image: "Aarburg Bridge " © David P. Billington,

**Felsegg Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/felsegg-bridge
Image: "Felsegg Bridge" © David P. Billington

**Garstatt Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges

Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/garstatt-bridge
Image: "Simmebruecke Garstatt 01 11" by Хрюша is licensed under CC-BY-SA-3.0

**Lachen Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/churerstrasse-bridge
Image: "Lachen" courtesy of David Billington

**Salginatobel Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Salginatobel, 1930" courtesy of Maria Garlock

**Schwandbach Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Schwandbach Bridge, Side View" courtesy of Maria Garlock

**Stauffacher Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Stauffacher Bridge 1899" courtesy of Richard Garlock

**Tavanasa Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: "Tavanasa Bridge, 1905" © ETH-Bibliothek Zurich, Bildarchiv

**Valtschielbach Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image:"Valschielbach" courtesy of Nicolas Janberg via Structurae.de

**Vessy Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/vessy-bridge
Image: "Vessy" / Public Domain

**Zuoz Bridge**
Art of Structural Engineering, Week 5: Robert Maillart and Concrete Bridges
Department of Civil Engineering and Operations Research at Princeton University, Civil Engineering 262: Structures and the Urban Environment, Gallery of Structures website, accessed November 2015. http://www.princeton.edu/~civ262/Gallery/
Image: “Zuoz Bridge” courtesy of David Billington

**Week 7: New Bridge Forms**

**Cascella Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms,
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/cascella-bridge
Image: "Nanin-Bridge and Cascella-Bridge" courtesy of Christian Menn

**Chillon Viaduct**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/chillon-viaduct
Image: "Road from Chateau Chillon" by newformula is licensed under CC BY-NC-ND 2.0

**Crestawald Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/crestawald-bridge
Image: Crestawald Bridge © Christian Menn http://www.christian-menn.ch

**Cröt Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/averserrhein-bridge-at-crot
Image**:** ”Cröt Bridge” © Christian Menn http://www.christian-menn.ch/english/projekte_e/crot_e.htm

**Felsenau Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/felsenau-bridge
Image: "Felsenau Bridge Side View" © Nicolas Janberg

**Ganter Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/ganter-bridge
Image: "Ganter Bridge" courtesy of Christian Menn

**Klosters Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/landquart-river-bridge
Image: "Klosters Bridge" courtesy of Christian Menn

**Letziwald Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/averserrhein-bridge-at-letziwald
Image: "Letziwald Bridge" courtesy of Christian Menn

**Nanin Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/nanin-bridge
Image: "Nanin-Bridge and Cascella-Bridge" courtesy of Christian Menn

**Reichenau Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/reichenau-bridge
Image: "Reichenau Bridge" courtesy of Christian Menn

**Salvanei Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Image: "Salvanei Bridge" courtesy of Christian Menn

**Streicker Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/streicker-bridge
Image: "Streicker Bridge From Above" courtesy of Maria Garlock

**Sunniberg Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/sunniberg-bridge
Image: "Sunniberg Bridge Side View with Sky" © Nicolas Janberg

**Zakim Bunker Hill Bridge**
Art of Structural Engineering, Week 7: New Bridge Forms
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/leonard-p-zakim-bunker-hill-memorial-bridge
Image: "Leonard P. Zakim Bunker Hill Bridge - Boston, MA crop" by Wsvan is licensed under CC BY-SA 3.0

**Week 8: The Politics and Art of Spanish Bridges**

**Alamillo Bridge**
Art of Structural Engineering, Week 8: The Politics and Art of Spanish Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/alamillo-bridge
Image: "Puente del Alamillo en Sevilla" by Galvan is licensed under GNU Free Documentation License

**Barqueta Bridge**
Art of Structural Engineering, Week 8: The Politics and Art of Spanish Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/la-barqueta-bridge
Image: "Barqueta Bridge" is licensed under CC-BY-SA-3.0

**Castilla La Mancha Bridge**
Art of Structural Engineering, Week 8: The Politics and Art of Spanish Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/talavera-de-la-reina-cable-stayed-bridge
Image: "Tallest Tower in Spain" courtesy of J. Glassman

**Engineer Carlos Fernandez Casado Bridge**
Art of Structural Engineering, Week 8: The Politics and Art of Spanish Bridges
Image: Engineer Carlos Fernandez Casado Bridge © cfcsl.com (website of Carlos Fernandez Casado)

**La Pepa Bridge**
Art of Structural Engineering, Week 8: The Politics and Art of Spanish Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/la-pepa-bridge
Image: "Pepa Bridge" courtesy of Ignacio Paya Zafortaza

**M. Laboa Footbridge**
Art of Structural Engineering, Week 8: The Politics and Art of Spanish Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/mikel-laboa-footbridge
Image: "Laboa" courtesy of Mario Guisasola

**Montoro Bridge**
Art of Structural Engineering, Week 8: The Politics and Art of Spanish Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/new-montoro-bridge
Image: “Montoro Bridge “ © Jose Alvarez, Russell Archer, and Sean Coffers

**Sancho el Mayor Bridge**
Art of Structural Engineering, Week 8: The Politics and Art of Spanish Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/sancho-el-mayor-bridge
Image: "Sancho el Mayor Bridge" © Emisión filatélica de Correos y Telégrafos, S.A.

**Vilafant Footbridge**
Art of Structural Engineering, Week 8: The Politics and Art of Spanish Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/vilafant-footbridges
Image: "Vilafant" courtesy of T. Huynh

**Villabona Footbridge**
Art of Structural Engineering, Week 8: The Politics and Art of Spanish Bridges
Nicolas Janberg, Structurae website: International Database for Civil and Structural Engineering, accessed November 2015. http://structurae.net/structures/villabona-zizurkil-footbridge
Image: "Villabona" © I. Unzurrunzaga