

The Masonry Society

Sustainability E-News

Old is New

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SPONSORED EDITION

From The Editor

I love it when old things or ways of doing things are re-examined to see what we can learn from them because there is so much we can learn from our past. This edition includes an article on how using historic methods to build stone arch bridges is solving transportation issues while keeping a low carbon footprint; an article on adapting and reusing old buildings; and one on how the longevity of the layers in a building assembly should inform its construction.

As a reminder, TMS is holding its [Spring Business Meetings](#) April 7-9 in Dallas. Come join us to hear about the latest changes planned for the TMS 402 Building Code for Masonry Structures, participate in the new Building Performance Committee or any of the many other [TMS committees](#) that are meeting. It's not too late to register, but registration rates increase on March 26, so act now!

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NOTE: Inclusion in this newsletter is not an endorsement of the products and materials featured, nor have these products been evaluated by TMS or the editor. Furthermore, the views expressed in the articles featured are those of the article authors.

GREEN BUILDING NEWS

This first article discusses how important it is to recognize the different parts and assemblies within a building have different roles and how we should think about them differently. These assemblies within a building "that adapt or change at different timescales" are referred to as 'shearing layers'. ~Tina

Embodied carbon and the shearing layers of change
BUILDING ENCLOSURE ONLINE

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Platinum Level



CMACN
Concrete Masonry Association of California and Nevada

Though they may be comprised of seemingly permanent materials such as concrete, masonry, metal, glass, or wood, our buildings slowly deteriorate; or may be adapted to changing needs; they may be gutted, expanded, or sometimes even contracted. "However, an overarching concept amidst all of this is consideration of time - specifically, the rate of change and adaptation of the various shearing layers. The layers with the shortest timescales of change (e.g., our furniture, finishes, and furnishings) should have minimal/zero negative environmental impacts, including embodied carbon. Ideally, they are rapidly renewable and could return to biological or technical systems of reconstitution - and perhaps they can even serve as carbon sinks. The layers with longer timescales of change (e.g., our building structures and envelopes) may require more embodied carbon, but their associated negative environmental impacts may be minimized by thoughtfully designing these layers for the greatest degree of durability, resiliency, and longevity." [Learn more here.](#)

Resilient masonry military housing

STRUCTURE MAGAZINE

The Bachelor Enlisted Quarters (BEQ) project [featured in the February issue of STRUCTURE](#) magazine is designed to provide a resilient, functional multi-story housing complex for enlisted military personnel. Several structural schemes were evaluated. The final solution developed by the structural design team addressed architectural functionality, minimized material costs, and helped shorten the construction schedule by inseting the perimeter columns and relying on Vierendeel truss action of exterior concrete masonry walls. [Editor's note: This project uses "multi-functional" concrete masonry walls to provide blast, wind, and seismic resilience.]

ASCE rolls out desktop app for Future World Vision

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)

The newly launched ASCE Future World Vision desktop app provides another way to stimulate engineers to incorporate big-picture thinking in their work, according to Jimmy Bennett, a project engineer in Minneapolis and part of the Future World Vision team. In this article Bennett elaborates on the new "Mega City 2070" platform, which envisions a future mega city with an interactive 3D model.

CODES and STANDARDS NEWS

The UK Green Building Council's Framework on climate-related risks is a helpful tool, especially for those beginning to explore resilience and our built environment. It provide easy to understand guidance to examine potential risks. ~Tina

UKGBC launches a Framework for measuring climate-related physical risks

UKGBC

The UK Green Building Council (UKGBC) has developed a "Framework for Measuring and Reporting of Climate-related Physical Risks to Built Assets". The guidance document includes detailed information on the physical risk assessment process; a methodology for built asset scale; and a standalone reporting framework which can be used to support the preparation of disclosure reports. By providing a methodology for the built environment, it is hoped that the framework will address the current lack of consensus on physical risk disclosure methodologies. [Read more.](#)

Eight WashREIT apartment properties certified under BREEAM

GLOBEST (free registration required)

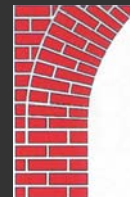
Concrete Masonry
Association of California &
Nevada ***



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Association of America **



Western
States Clay
Products
Association

Gold Level



Masonry
Institute
of
America



Southeast Concrete Masonry
Association **

Silver Level



Spec Mix

Eight of WashREIT's multifamily properties have received certification under BREEAM's In-Use sustainability assessment method certification standard. The properties are reportedly the first US assets of their kind to achieve BREEAM certification. WashREIT has concentrated on existing Class B assets, CEO Paul McDermott noted in [this article](#), "and historically, this asset class has lacked in sustainability investments."

GREEN PRODUCT NEWS

The first article here is a great example of learning from the past with masonry. According to Dr Tomor, "Masonry bridges last much longer than concrete or steel, probably minimum twice the life span. There is a compelling case for reviving this incredibly long-lasting material." ~Tina

Ancient stone used for affordable bridges in Tanzania THE CONSTRUCTION INDEX (UK)

Locally sourced stone is being used in Tanzania to build affordable arched bridges with lower carbon emissions. The Belgian charity Enabel and the Rural & Urban Roads Agency have built 70 such spans in Tanzania over the past four years, drawing on methods that date to ancient times. [Read more](#).

Roundup: 10 homes featuring exposed concrete blocks

DEZEEN

A [collection of ten homes](#) across the globe showcases exposed concrete blockwork, the concrete blocks usually used to create load-bearing walls. The applications range from an industrial look in Brazil to a cozy vacation home in upstate New York.

Adaptive reuse bringing new life to old buildings

REDSHIFT

Reusing old buildings for new purposes is not only green, but can preserve cultural and architectural heritage, writes Sarah Jones in [this article](#). Jones explores types of adaptive reuse types, advantages and limitations, and 10 adaptive reuse examples, including the repurposing of office spaces.

EDUCATIONAL NEWS

Lots of educational opportunities coming up! ~Tina

Register Now for The Masonry Society Spring Meetings

MASONRYSOCIETY.ORG

Registration is now open for the TMS Spring Meetings to be held at the Sheraton DFW Airport Hotel in Dallas, TX, **April 7-9**. Join us for TMS business and committee meetings (including TMS 402/602 meetings) and networking with other masonry professionals at TMS social events. For more information, [click here](#).

Achieving Resilience - How Masonry Supports Resilient Designs

THE MASONRY SOCIETY

Learn from Christine "Tina" A. Subasic, P.E., LEED A.P. about resilient design and how masonry can be used to enhance the resilience of buildings. During this **May 12 webinar**, Subasic will review the use of 'above-code' standards to strengthen buildings, and the role of masonry construction in meeting resilient design goals. For more information [visit the TMS website](#).

Bronze Level



ACME Brick ***



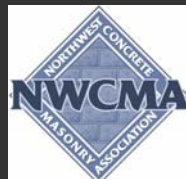
Cast Stone Institute ***



Nelson Testing Laboratories **



North Carolina Masonry Contractors Association ***



Northwest Concrete Masonry Association *



Pennsylvania Concrete Masonry Association ***



Masonry Institute of Washington*

Masonry Educators' Workshop to be Held Virtually

THE MASONRY SOCIETY

Mark your calendars! The Masonry Society is planning a Virtual [Masonry Educators' Workshop](#) (MEW) for June 21-23. The workshop is targeted towards professors and educators teaching undergraduate and graduate design and construction management classes on masonry and seeks to assist them on teaching future designers and construction professionals.

Webinar recording: Tornado Awareness and Risk Mitigation

ICCSAFE.ORG

Recently the International Code Council hosted a webinar on Tornado Awareness and Risk Mitigation. For those that missed it, a recording is available [here](#). More information can be found on ICC's [Tornado Safety & Recovery Resources page](#).

Workshop: Fostering a Circular Economy of Manufacturing Materials

ASTM INTERNATIONAL

Industry leaders are increasingly turning to the circular economy to address a global need for reducing waste and reusing materials. The objective of this April 20-21, 2022 virtual workshop is to develop a roadmap for ASTM technical standards to support the formation and engagement of manufacturers in a circular economy. Particular focus will be given to standards to support manufacturers in bringing their discarded materials into a mature materials marketplace as well as standards to measure and improve processing efficiencies resulting in reductions in discarded materials. Register and see the full program [here](#).

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