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Strategies for Buildings that Endure

1 AIA HSW/SD LU

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Presented by Restore Media, LLC and the Traditional Building Conference



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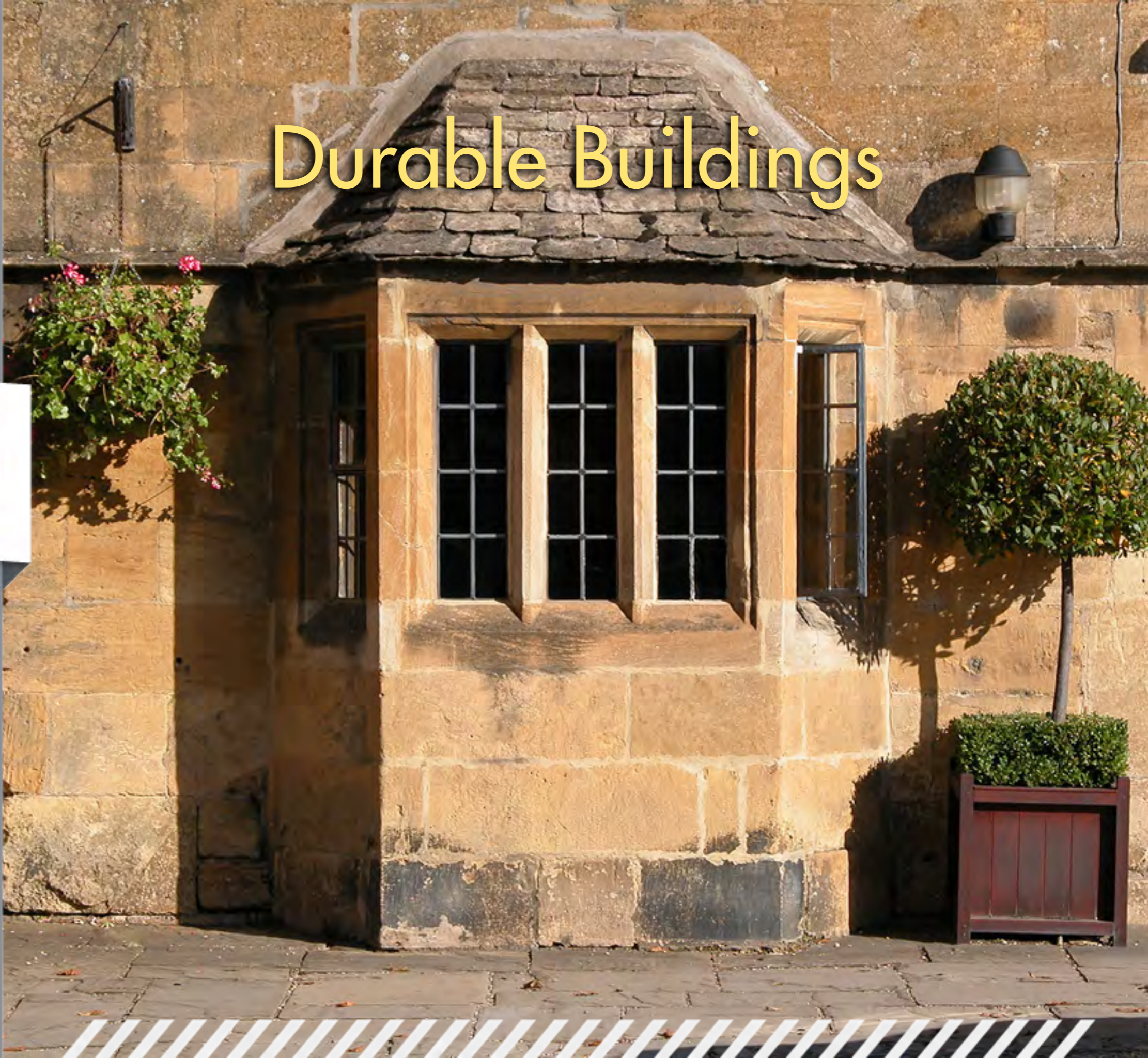
Strategies for Buildings that Endure

1. Describe at least five proven construction techniques that support longevity.
2. List at least five building materials that endure in a particular climate.
3. Detail common structural strengths and deficiencies when working on historic structures or in new construction.
4. Generalize about the geometry of traditional design when form and function merge to create aesthetically pleasing and structurally sound buildings.

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Durable Buildings





Durable Buildings Checklist



following:



Plans



Game-Changers

- * Commodities vs. Proprietary Products
- * Repairable & Patchable
- * Attachment
- * Stretching Carbon
- * Materials
- * Instructed Operation
- * Margin of Error
- * Timeframe



Commodities vs. Proprietary Products

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Getting Commoditized





Unique for First 5 Years
Commodity for 50 Years





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More Complicated Today
Commodity Tomorrow



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More Complication =
More Coordination Problems



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Empire State Building 15 Months Design & Build



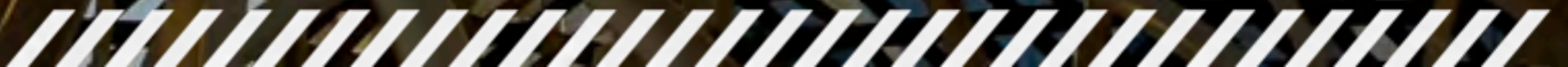


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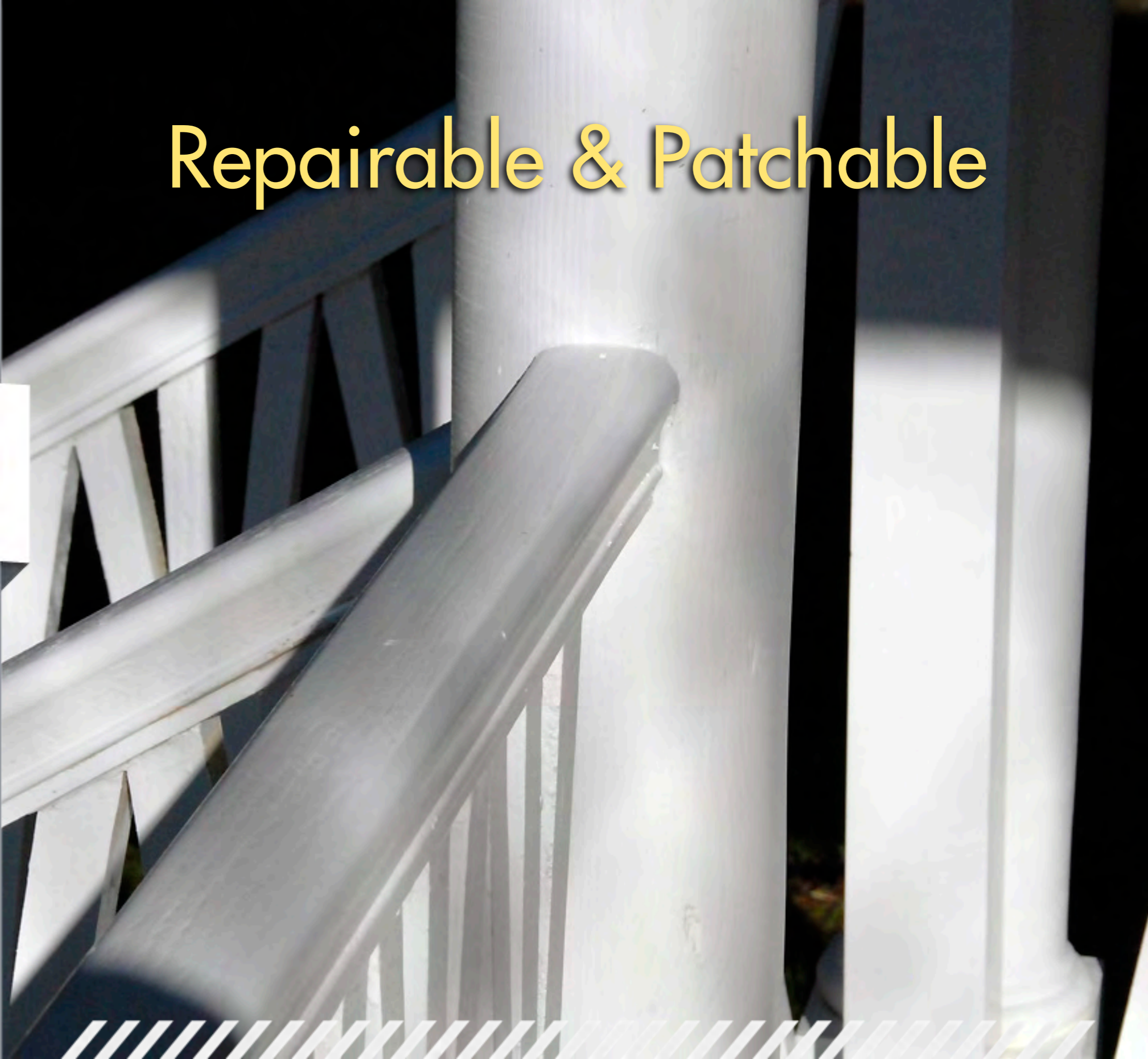
Proprietary Products



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Repairable & Patchable



No Maintenance =
Maintenance-Proof

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Charming
Patched



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Attachment to Shell

- * Masonry
- * Frame
- * Glass Curtain Wall

ALL ENQUIRIES
Brown & Lee
01438 316655

Planned Obsolescence

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Throwaway Buildings

- * Recycle Interior But Not Exterior



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Exterior Attachment





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Interior Attachment



Beam/Column/Cabinet Attachment

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Stretching Carbon

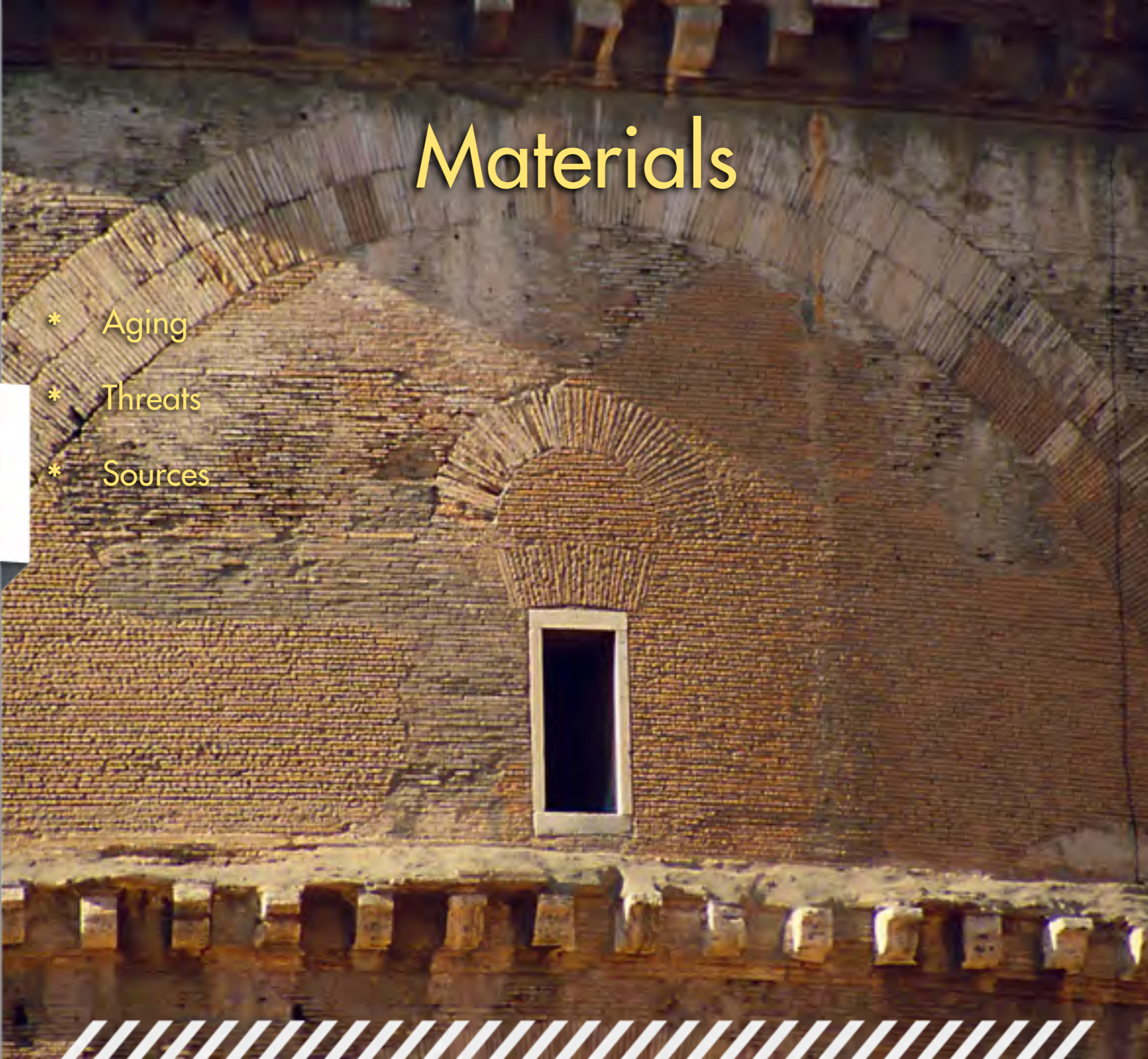


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Materials

- * Aging
- * Threats
- * Sources



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Materials
Aging



What Will Your Building Look Like as a Ruin?



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Materials Threats

- * Rot & Rust
- * Mold & Mildew
- * Wind
- * Fire
- * Flood



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Materials - Threats
Rot & Rust

- * Wood
- * Species
- * Grain, Now & Then
- * Pressure-Treating Chemicals
- * Glass Infusion
- * Steel
- * Steel-Reinforced Concrete
- * Galvanized vs. Stainless



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Materials - Threats - Rot & Rust

Strength vs. Durability

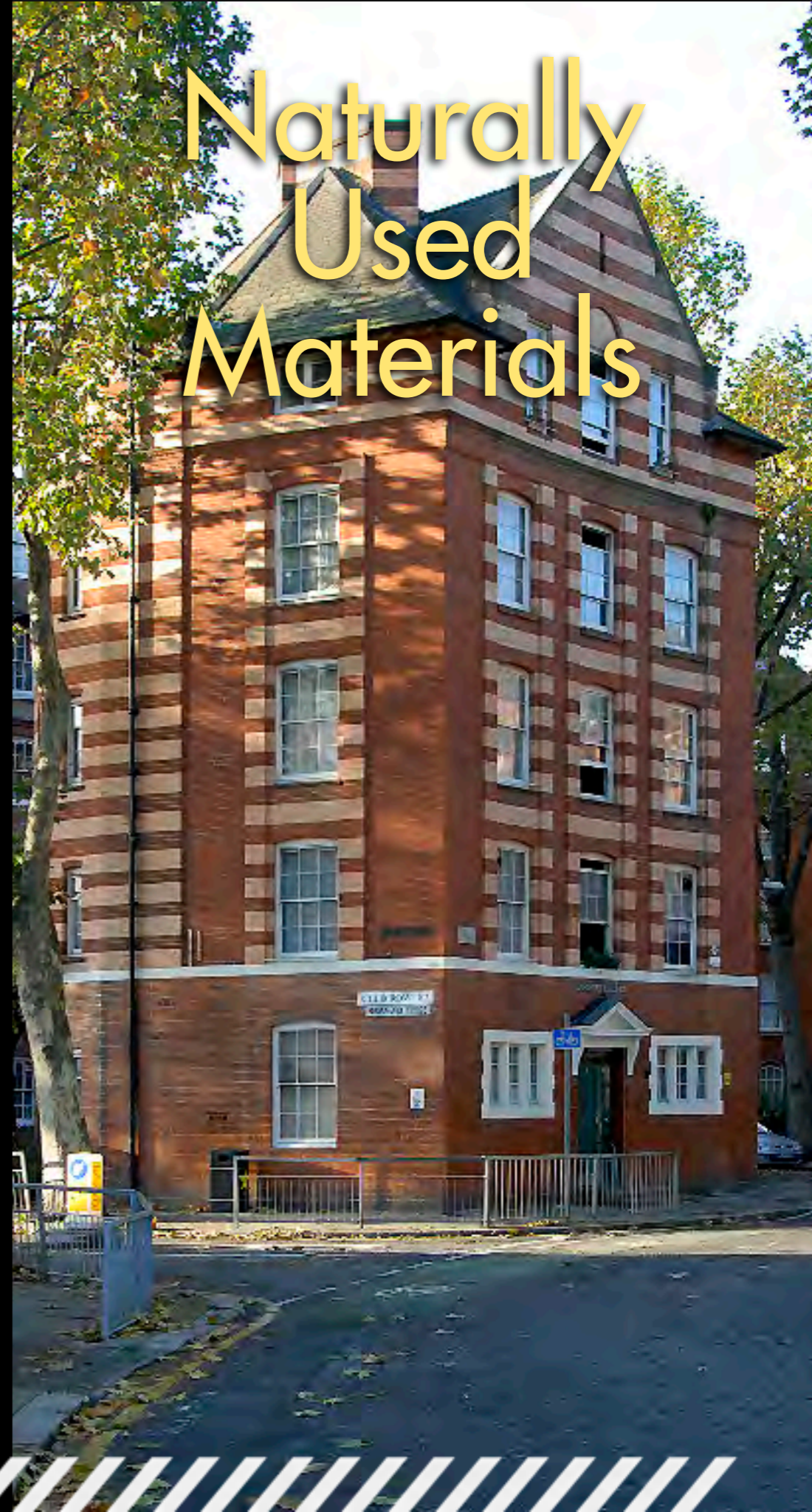


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Unnaturally
Used
Materials

Naturally
Used
Materials





Materials - Threats

Mold & Mildew

- * Concealed Spaces
- * Insulated Roofs
- * Insulated Crawl Spaces

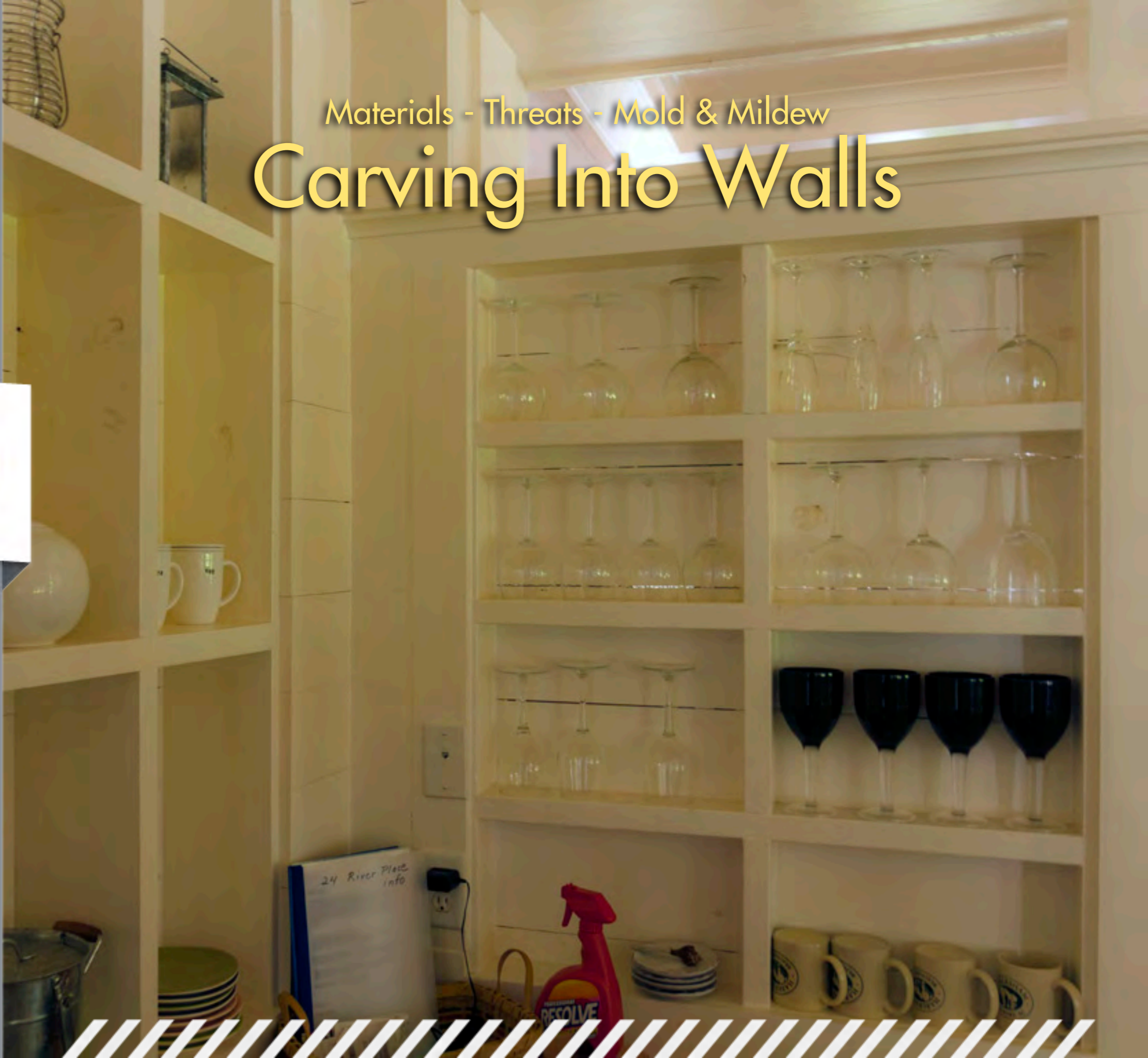


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Materials - Threats - Mold & Mildew

Carving Into Walls





Materials - Threats - Mold & Mildew

Carving Into Roofs





Materials - Threats - Mold & Mildew

Carving Into Ceilings





Materials - Threats - Mold & Mildew

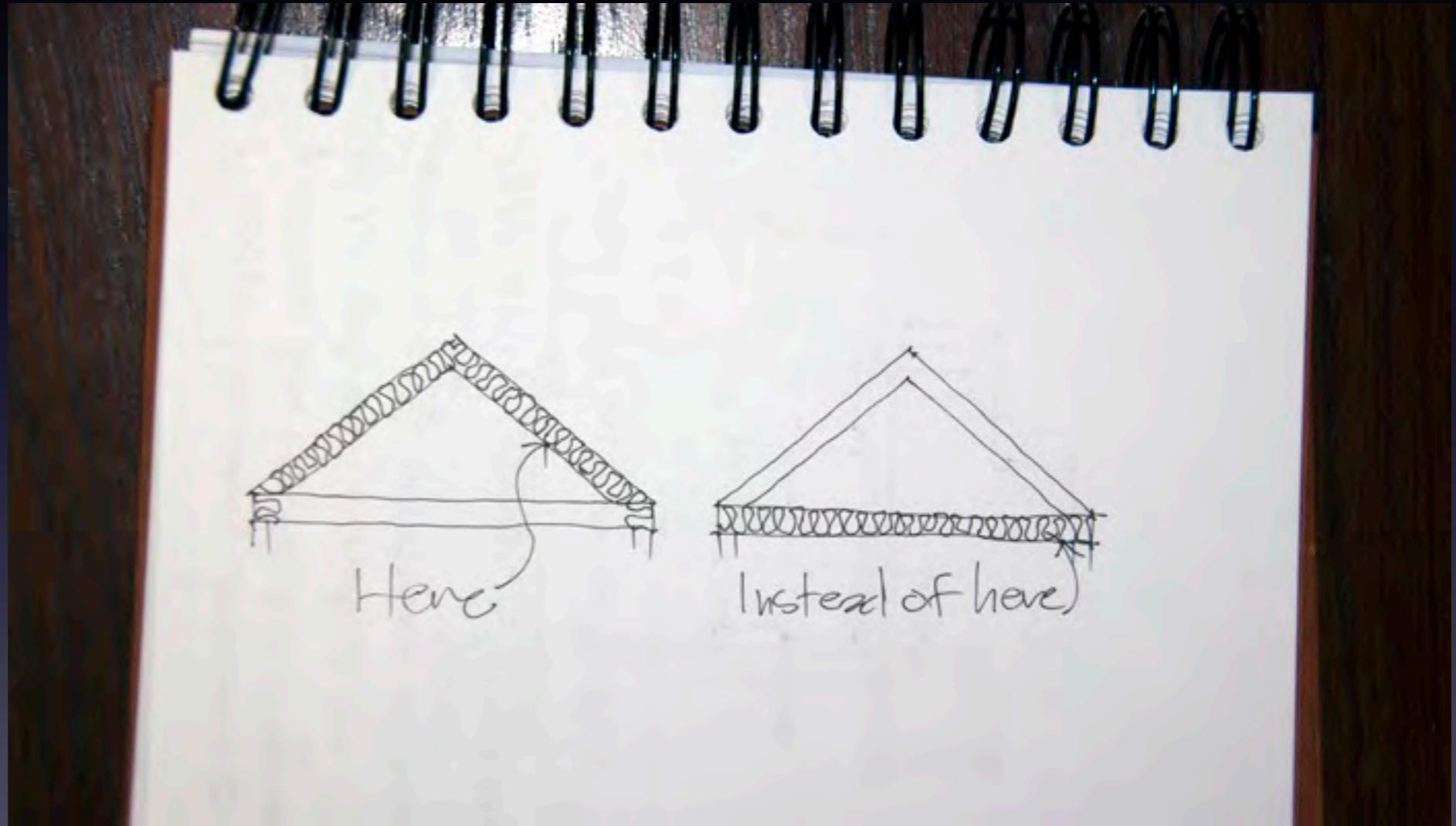
Carving Into Porch Ceilings





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Materials - Threats - Mold & Mildew Insulated Roofs

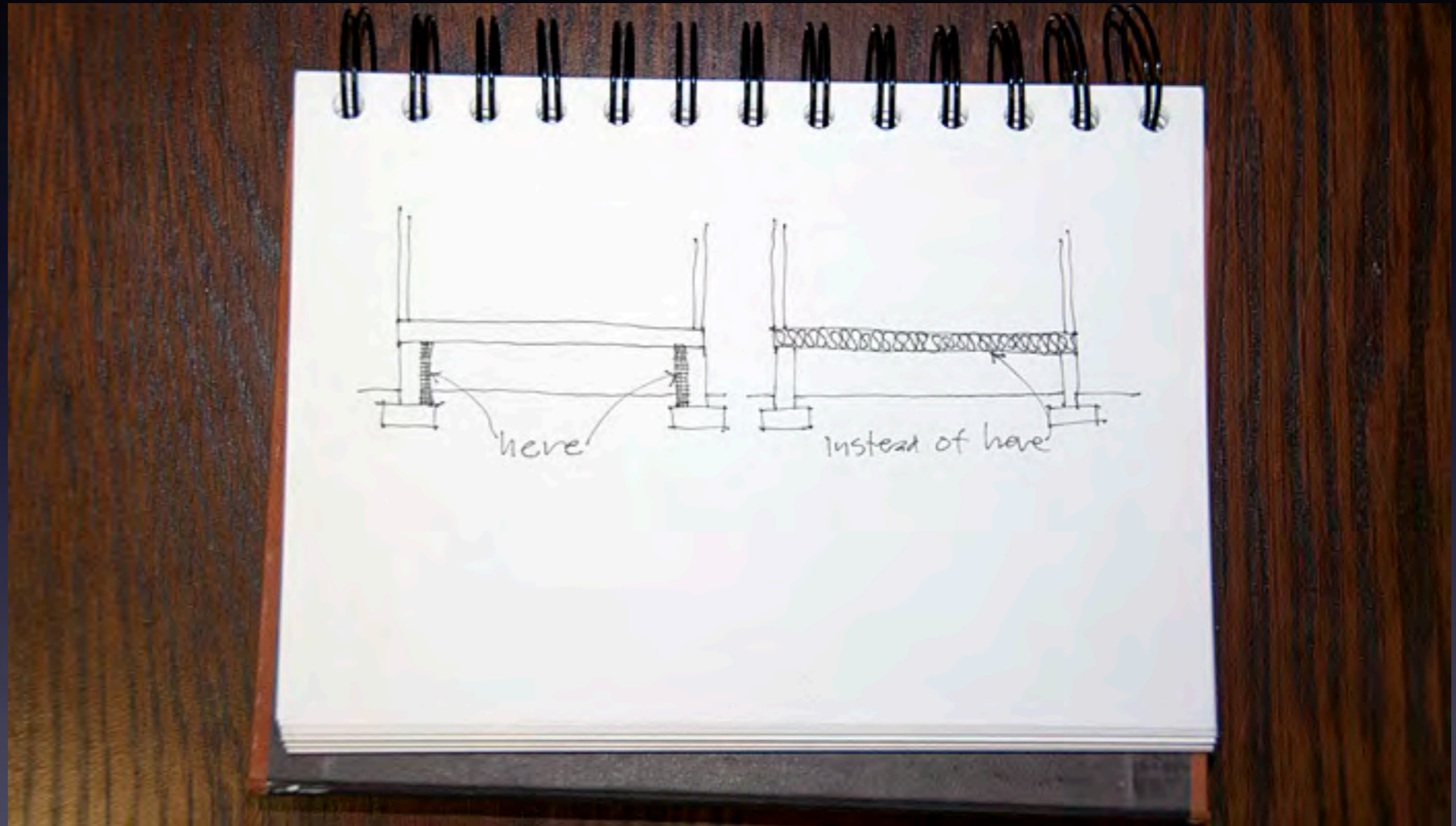




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Materials - Threats - Mold & Mildew

Insulated Crawl Spaces





Materials - Threats

Wind

- * Hurricane
- * Tornado





Materials - Threats

Fire

- * Plastic & Vinyl
- * Wood
- * Steel
- * Concrete
- * Stone





Materials - Threats - Fire Vinyl & Fire

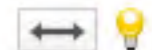
Vinyl Siding Blamed in House Fire's Spread OFFICIAL

grab

Par [LocalNews-GrabNetworks](#)

+ S'abonner

81 vues



Vinyl Siding Blamed in House Fire's Spread

WASHINGTON



INFO

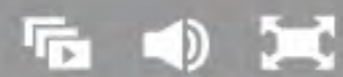
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Materials - Threats - Fire

Melting Vinyl

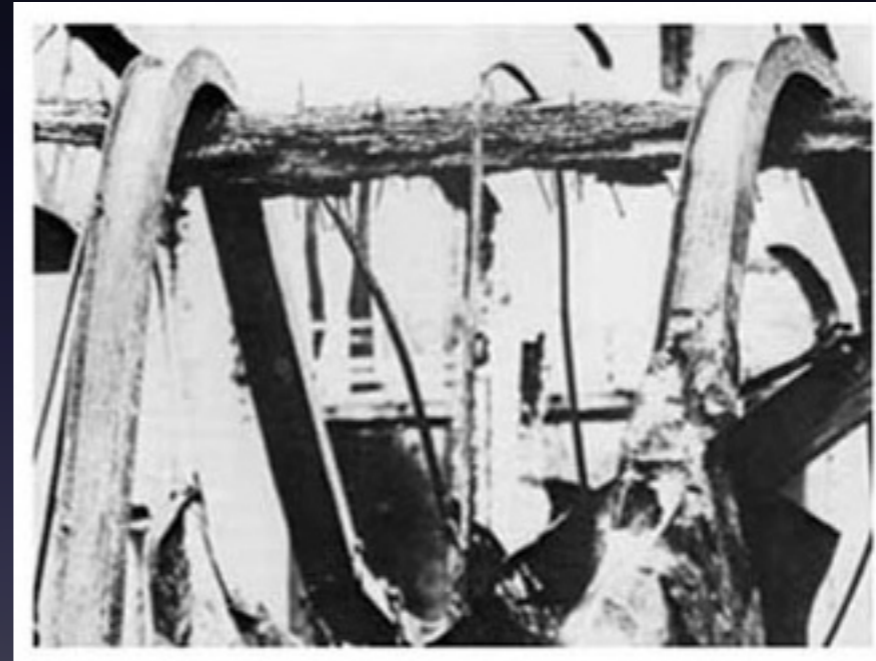


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Materials - Threats - Fire

Timber & Steel After Fire





Materials - Threats

Flood

- * Finishes
 - * Gypsum Board
 - * Carpet
- * Substrates
 - * Particle Board/Wafer Board
 - * Plywood
- * Structure

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Materials - Threats - Flood
Storm Surge



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Material Sources

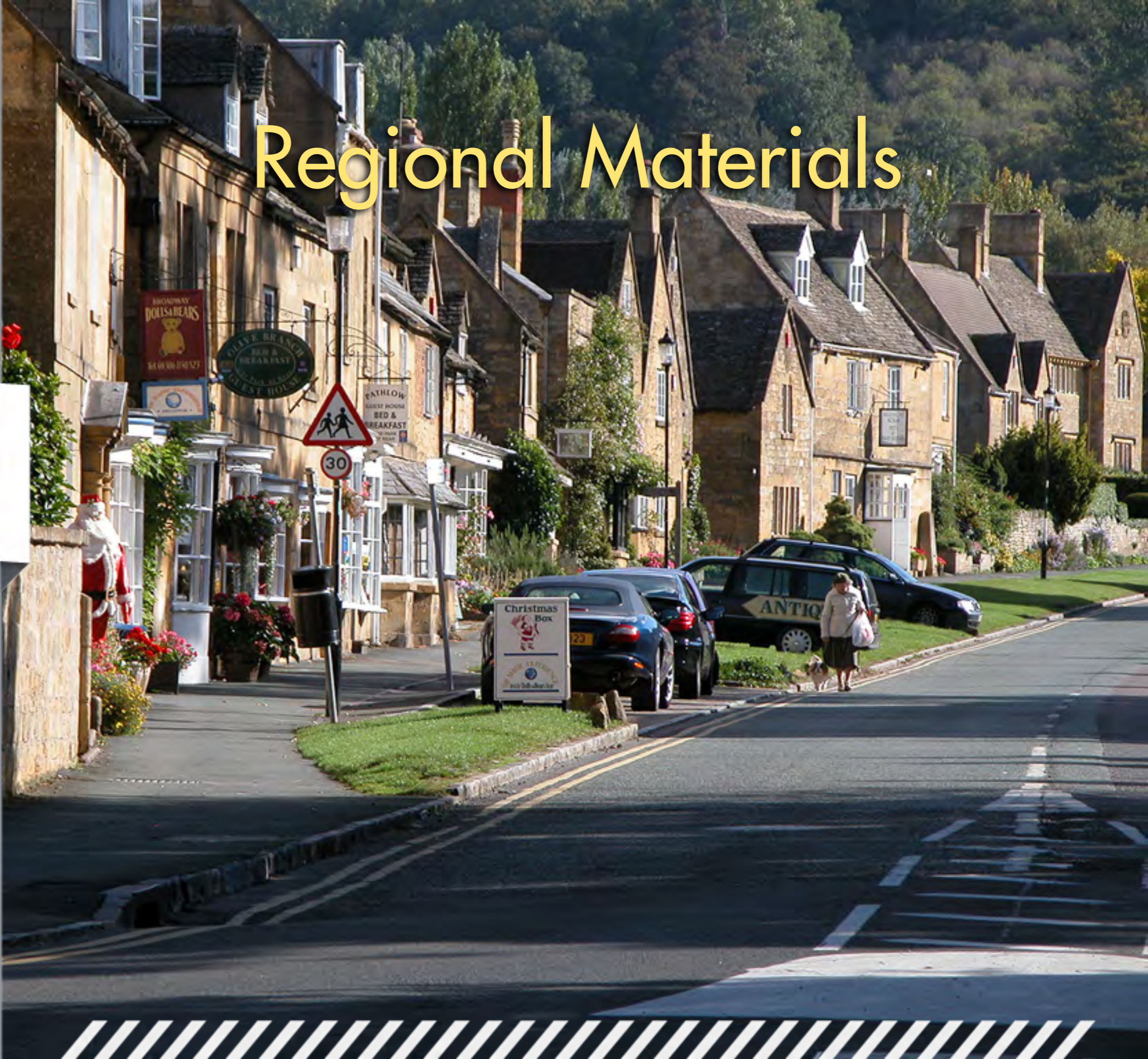


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Regional Materials



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Instructed
Operation

Self-Evident
Operation



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Margin of Error



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Timeframe



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Preserving Memory

PAIORIVSN ELIIVINE
ARCHITECTVS

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Four Quarters

- * Walls
- * Roofs
- * Openings
- * Elements



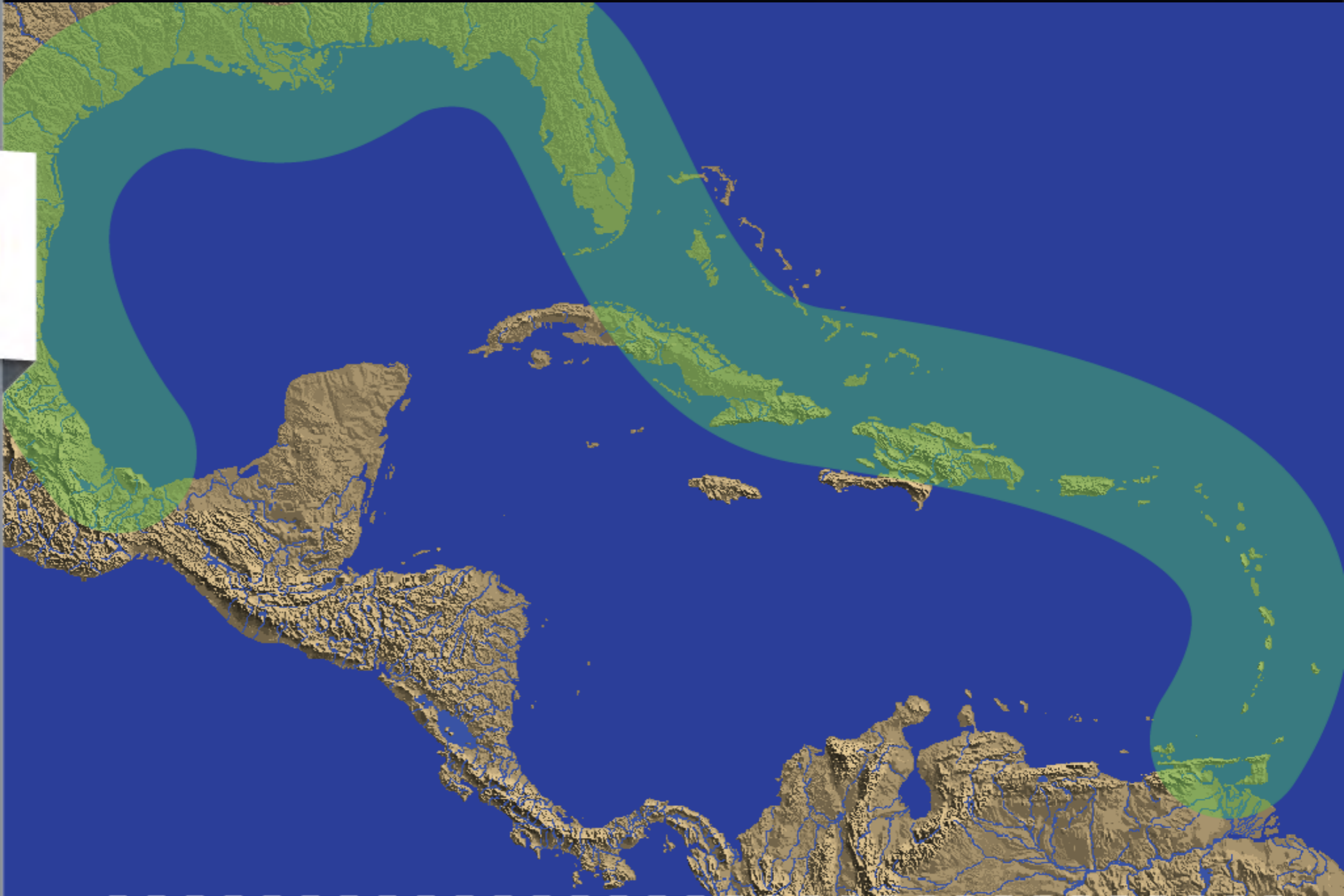


The Lens of Another Region

- * Conditions
- * Climate
- * Culture



The Caribbean Rim



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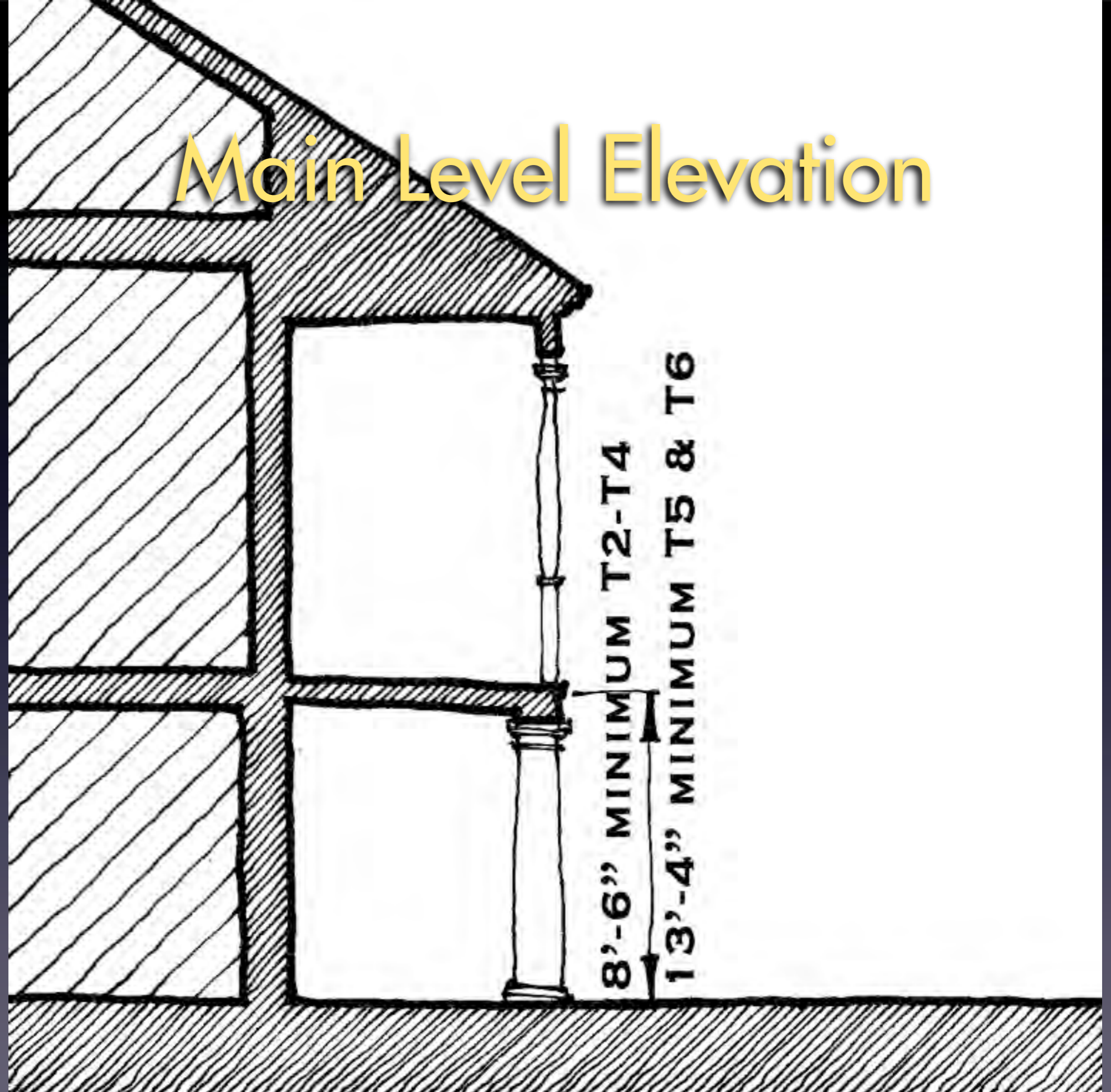
Walls





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Main Level Elevation



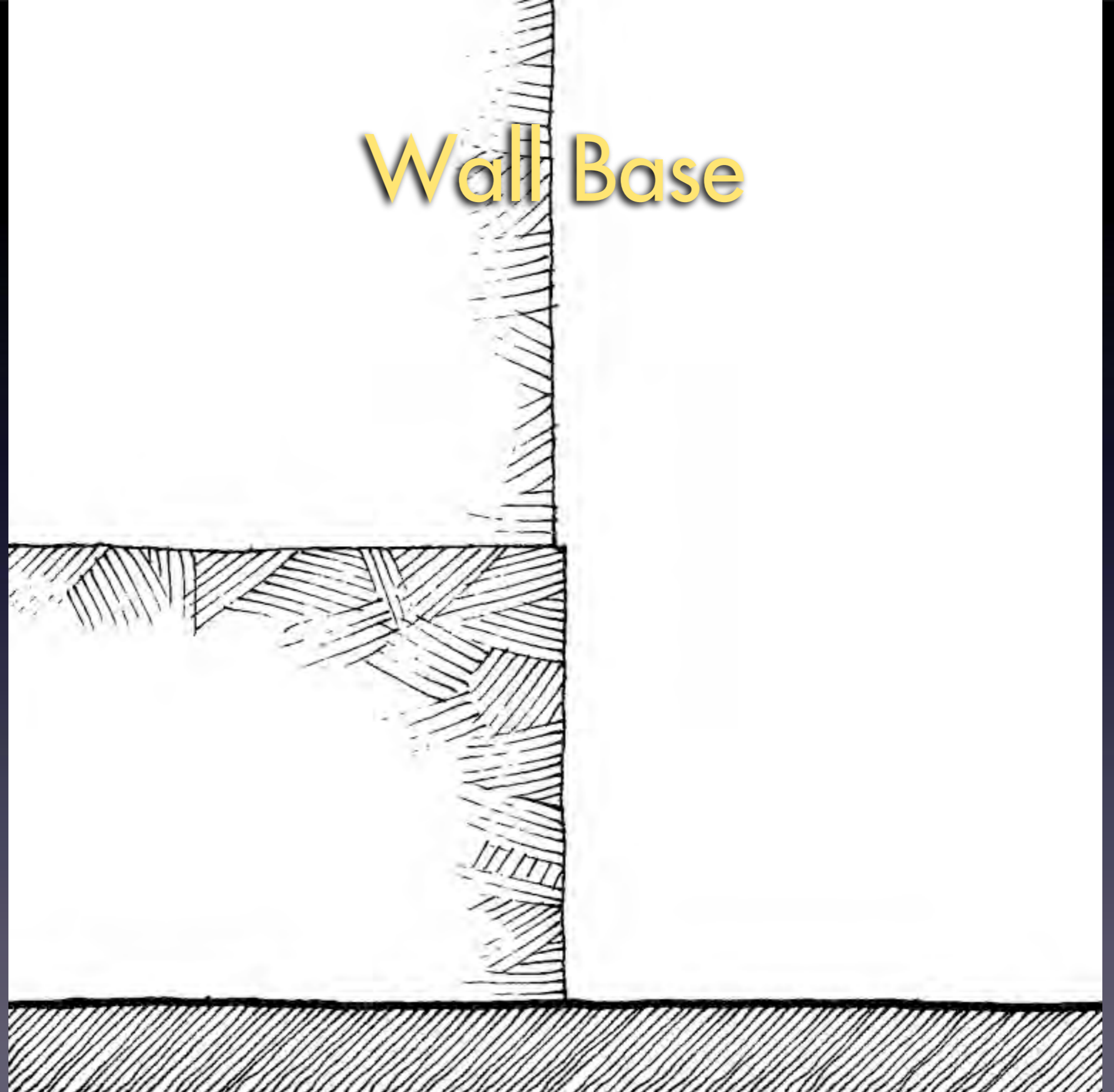
8'-6" MINIMUM T2-T4

13'-4" MINIMUM T5 & T6

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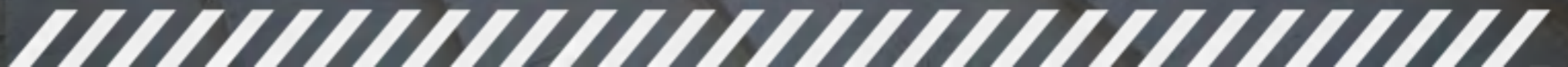
Wall Base





Roofs

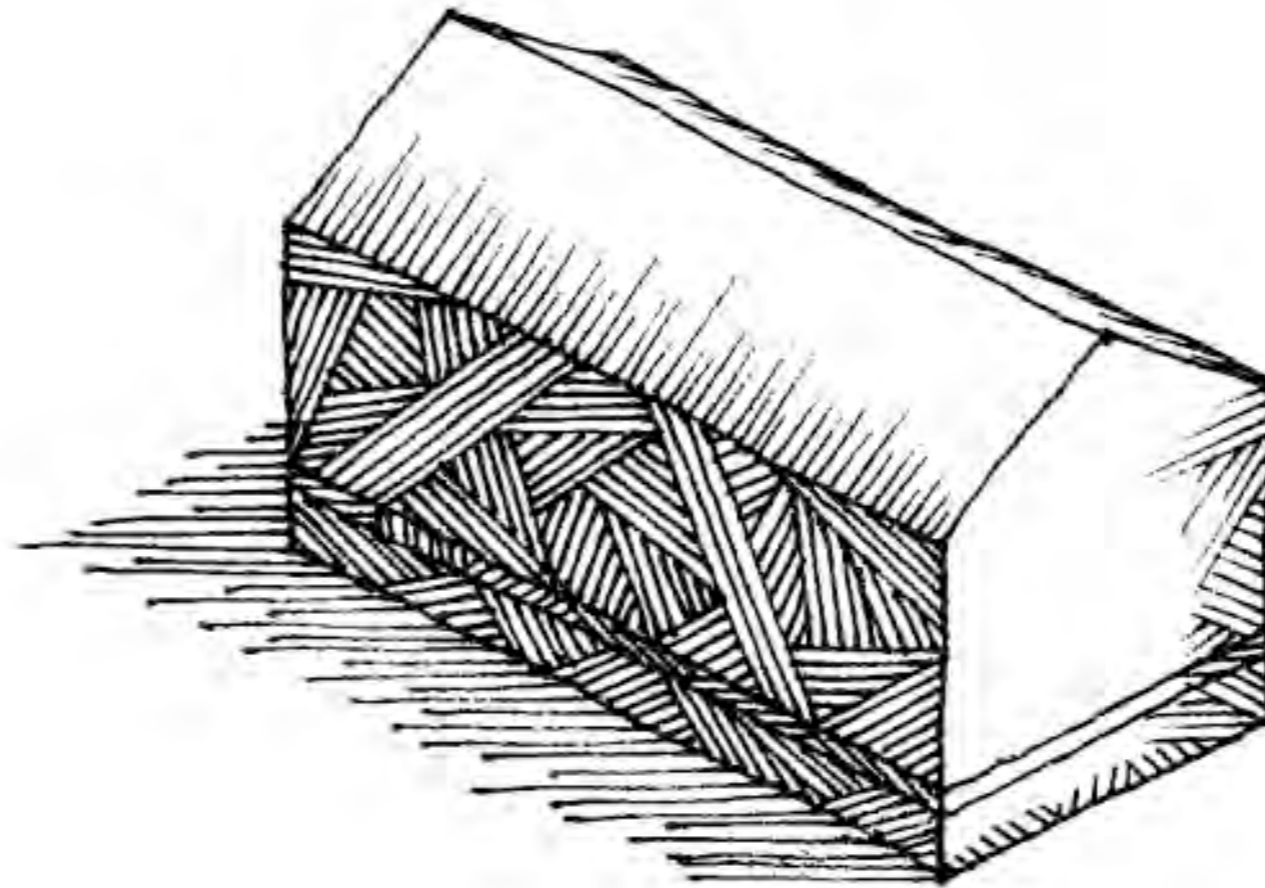
- * Shapes
- * Edges



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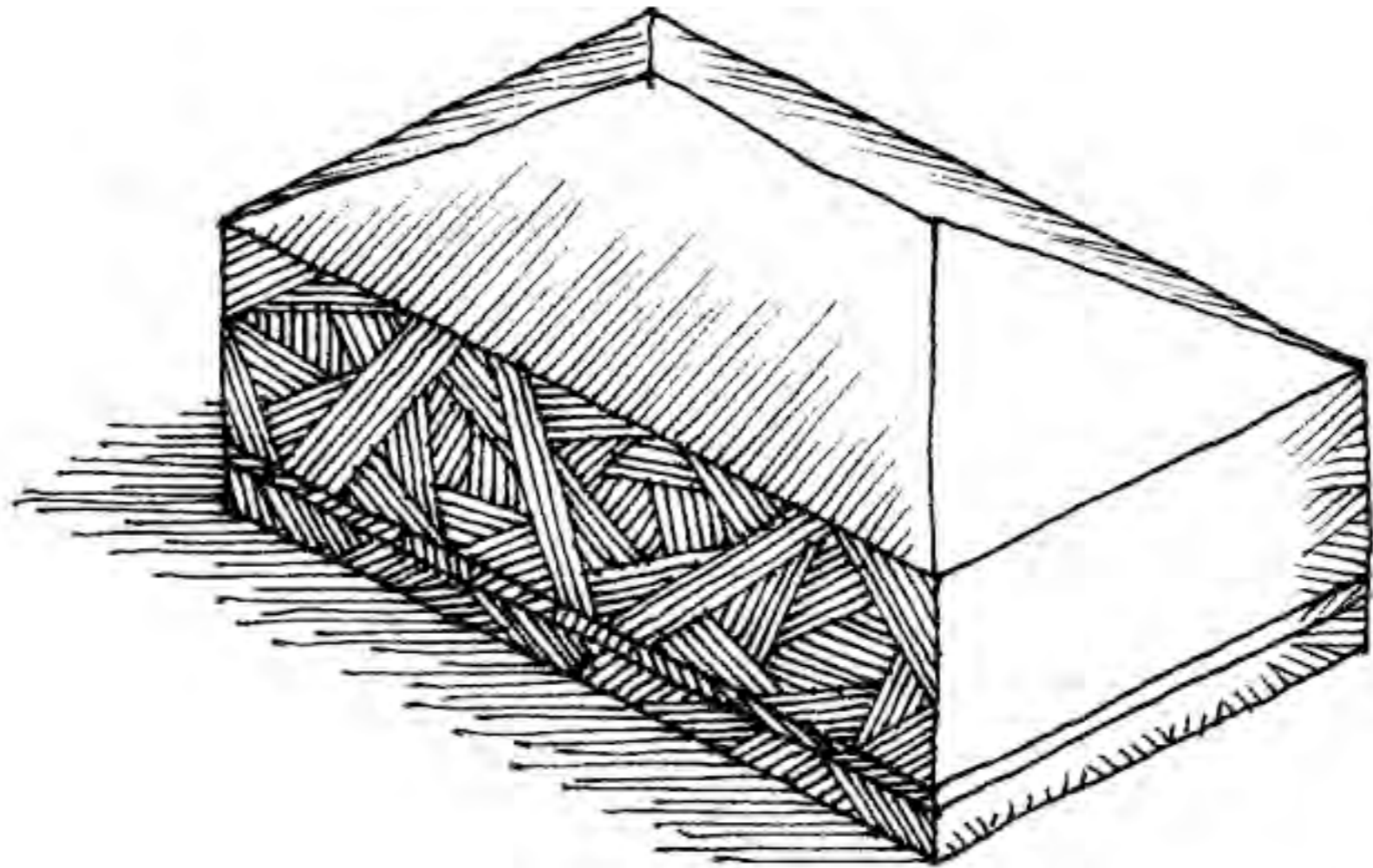
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Roof Shapes



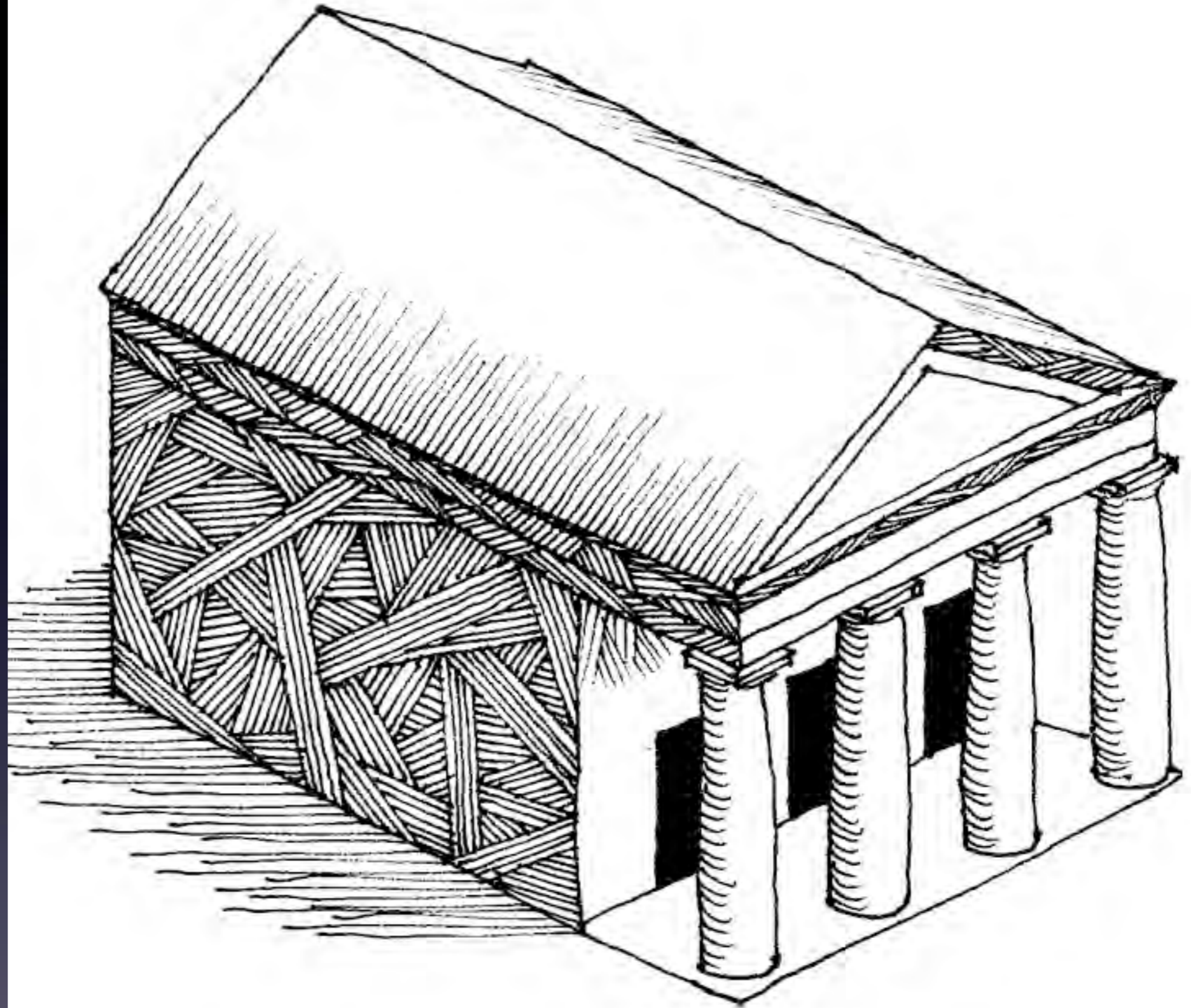
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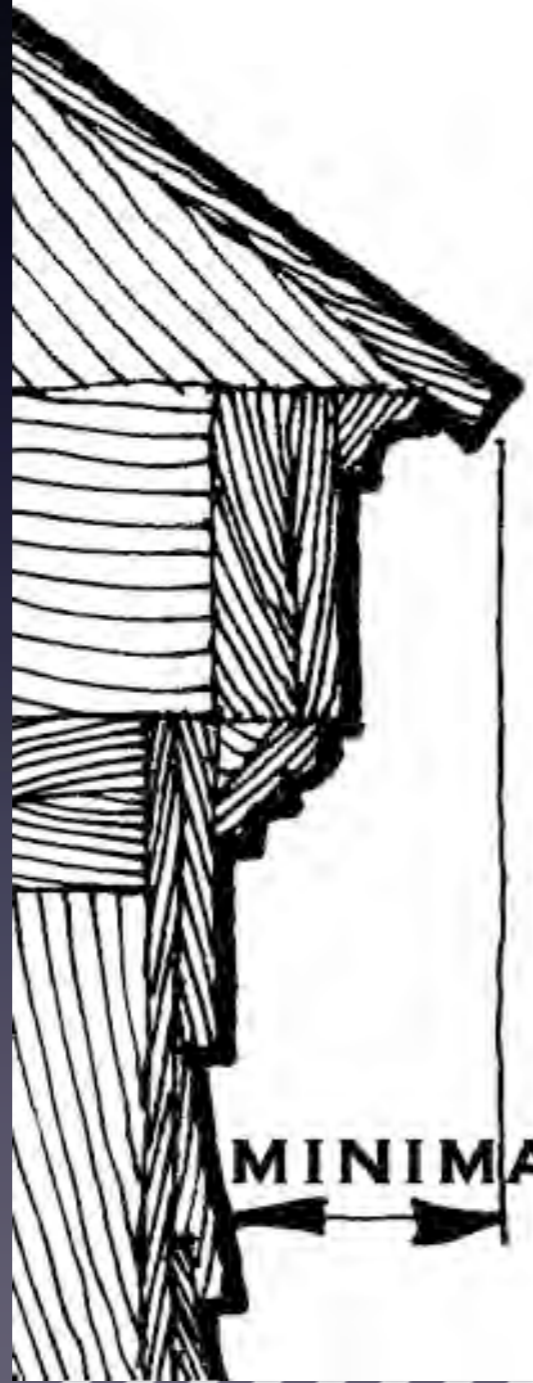
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MINIMAL

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Sacrificial Eave



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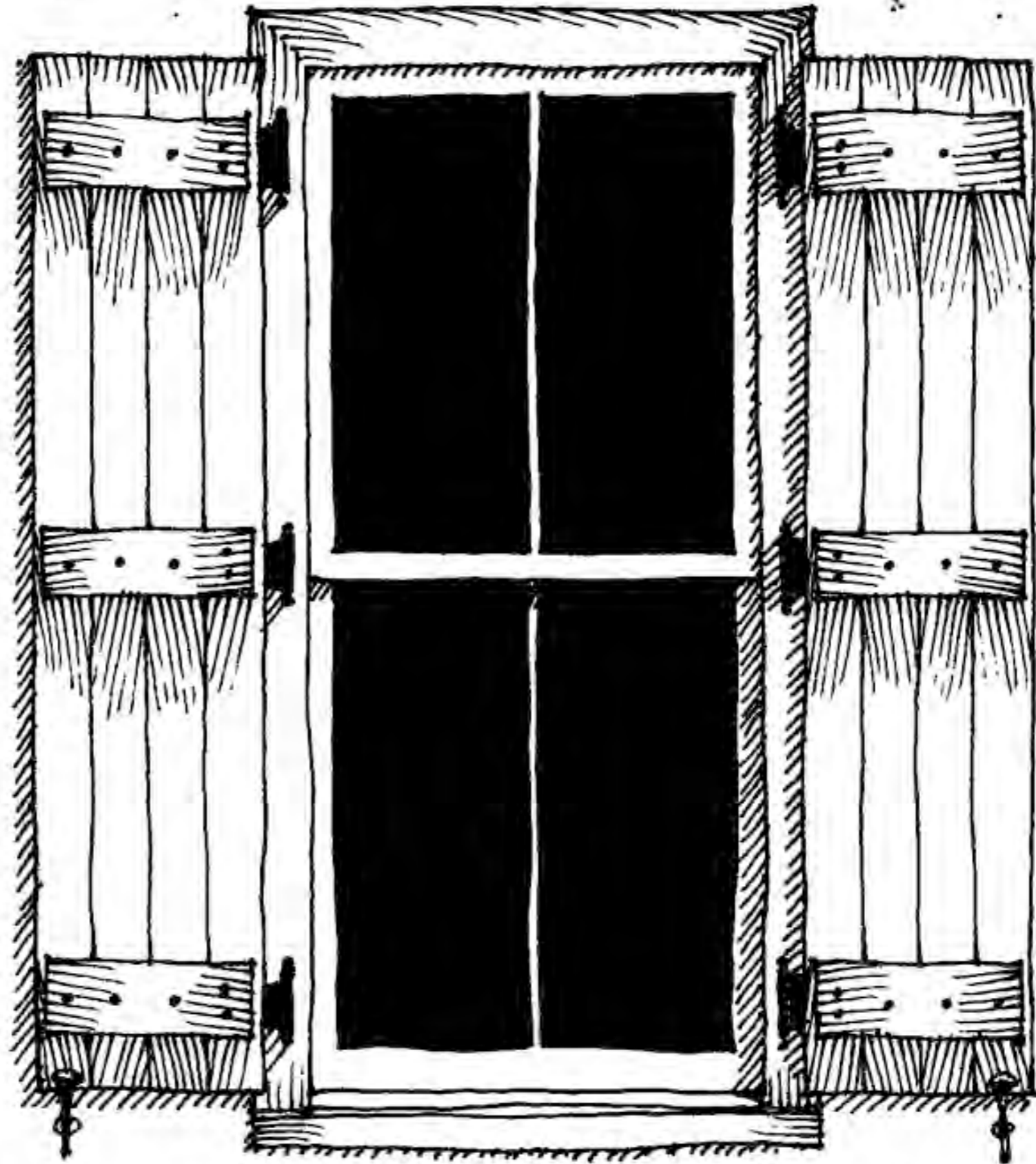
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Openings



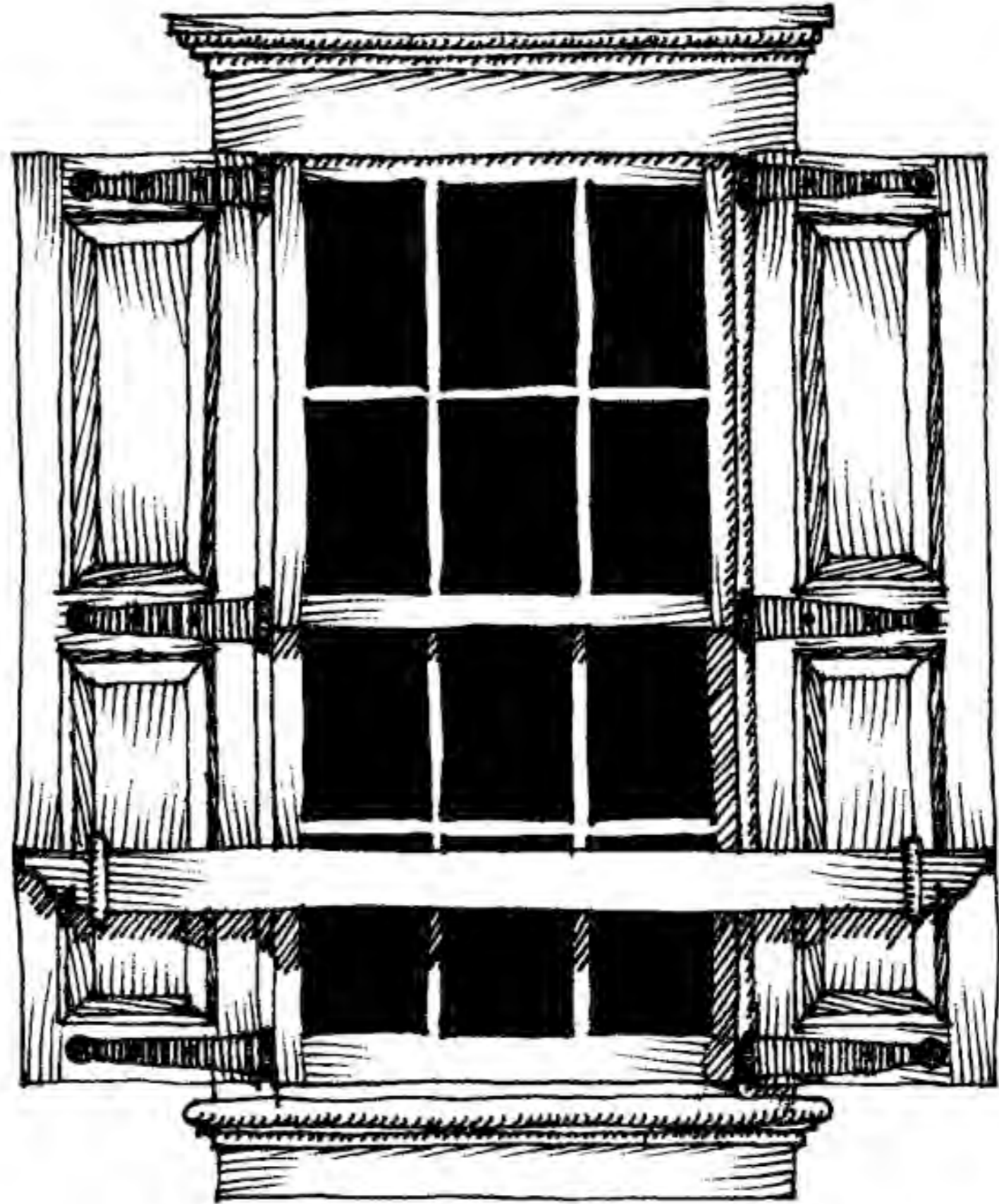
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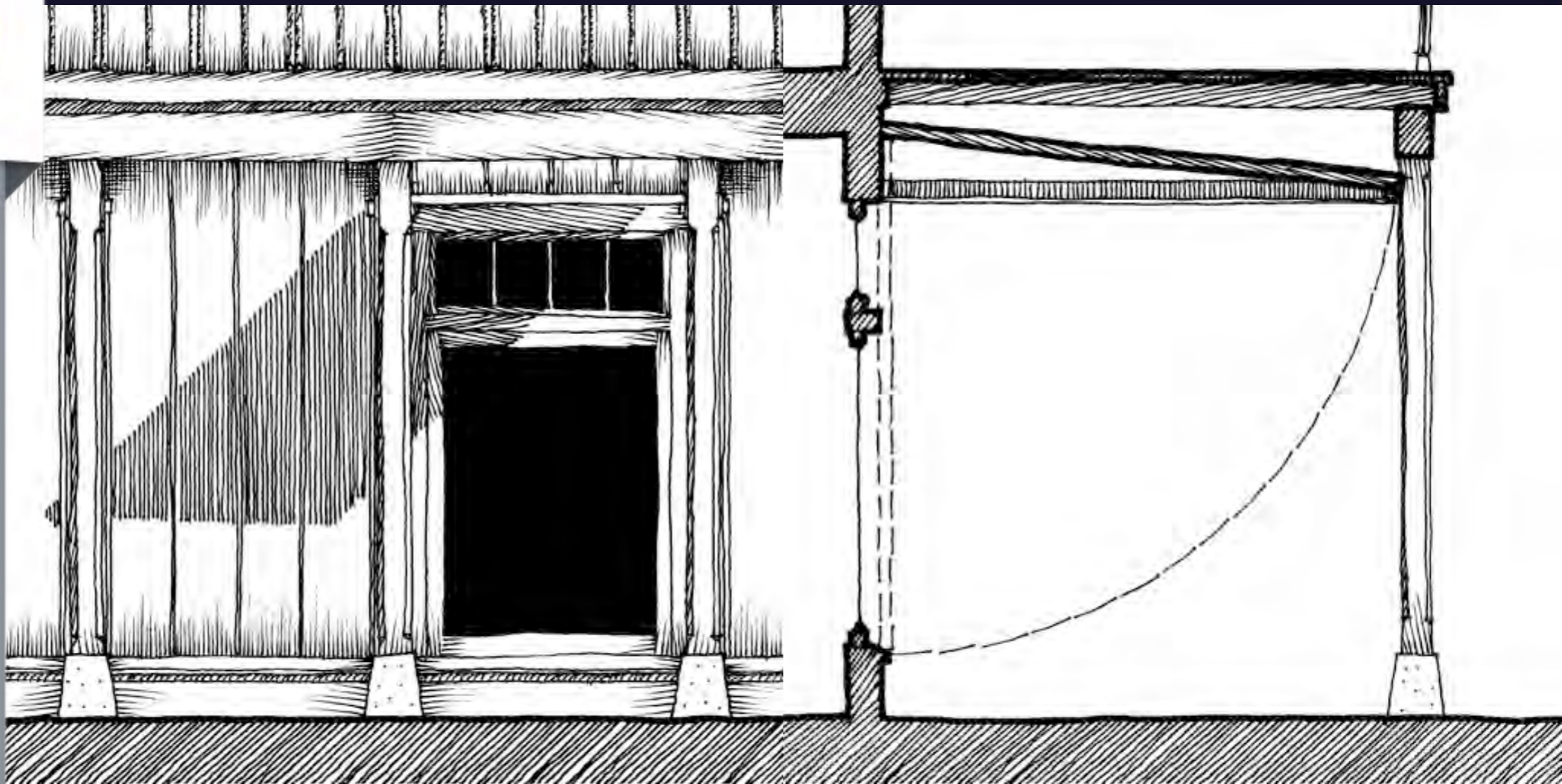
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Hurricane Storefront



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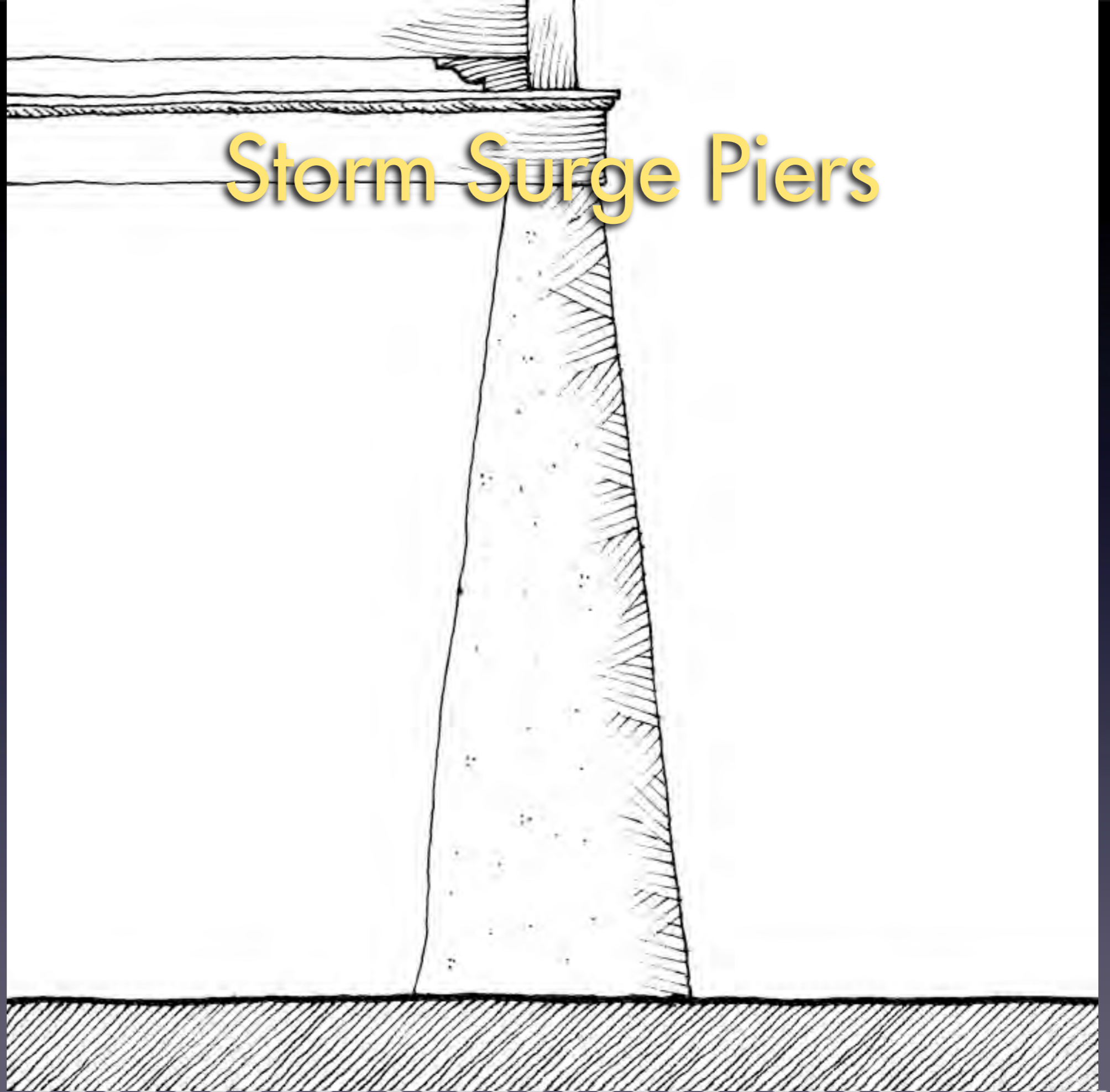
Elements



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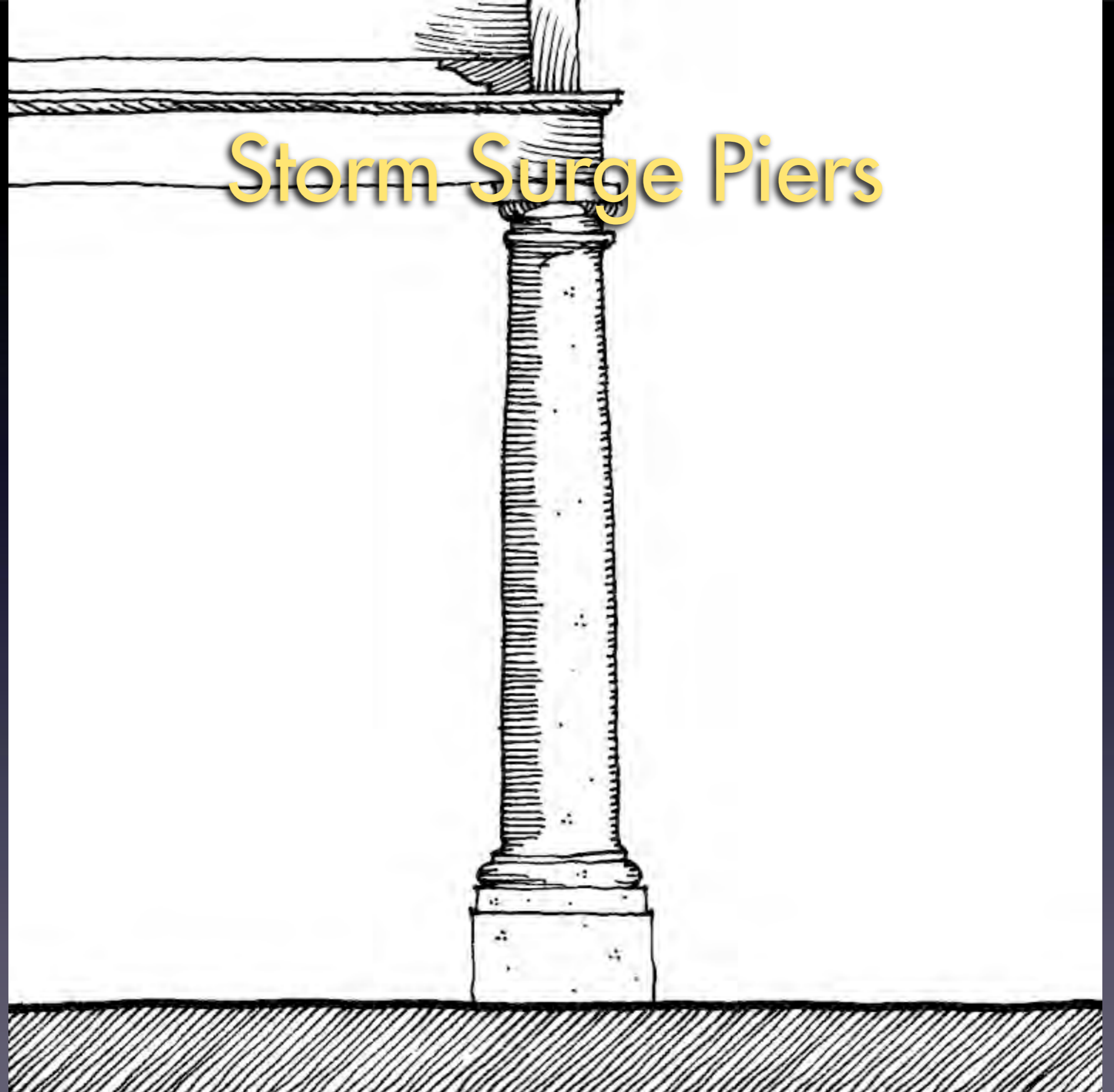
Storm Surge Piers



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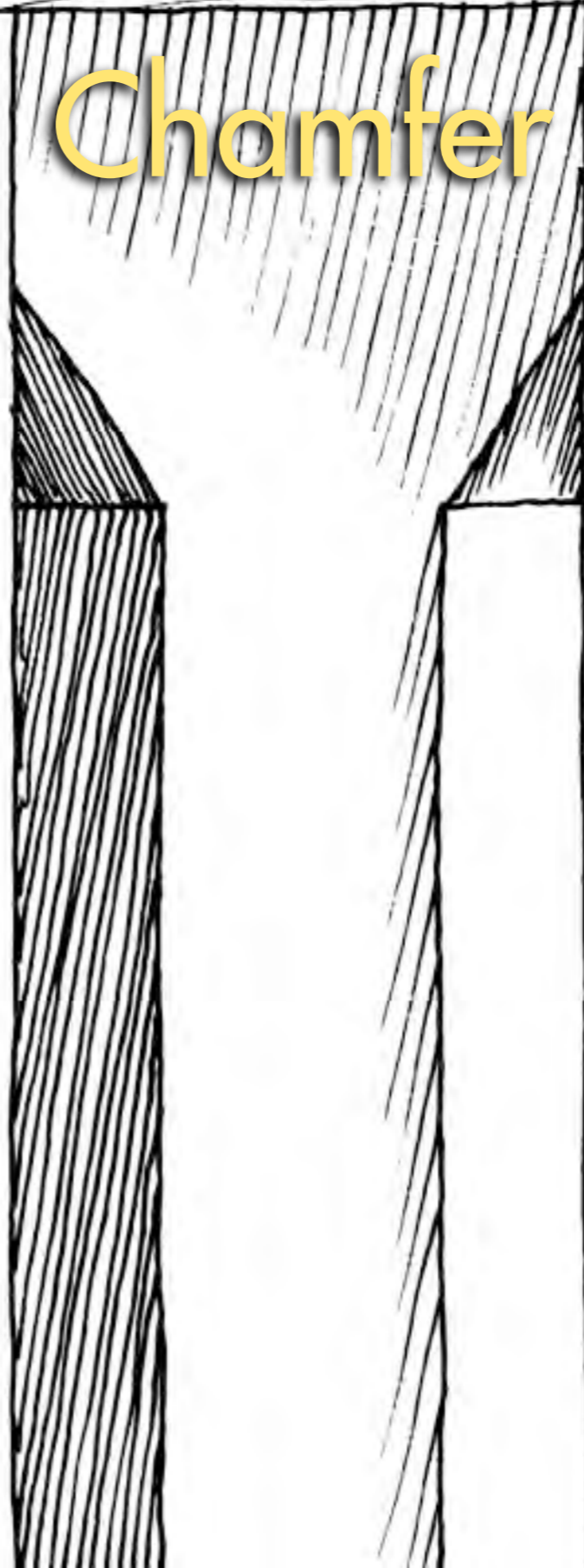
Storm Surge Piers



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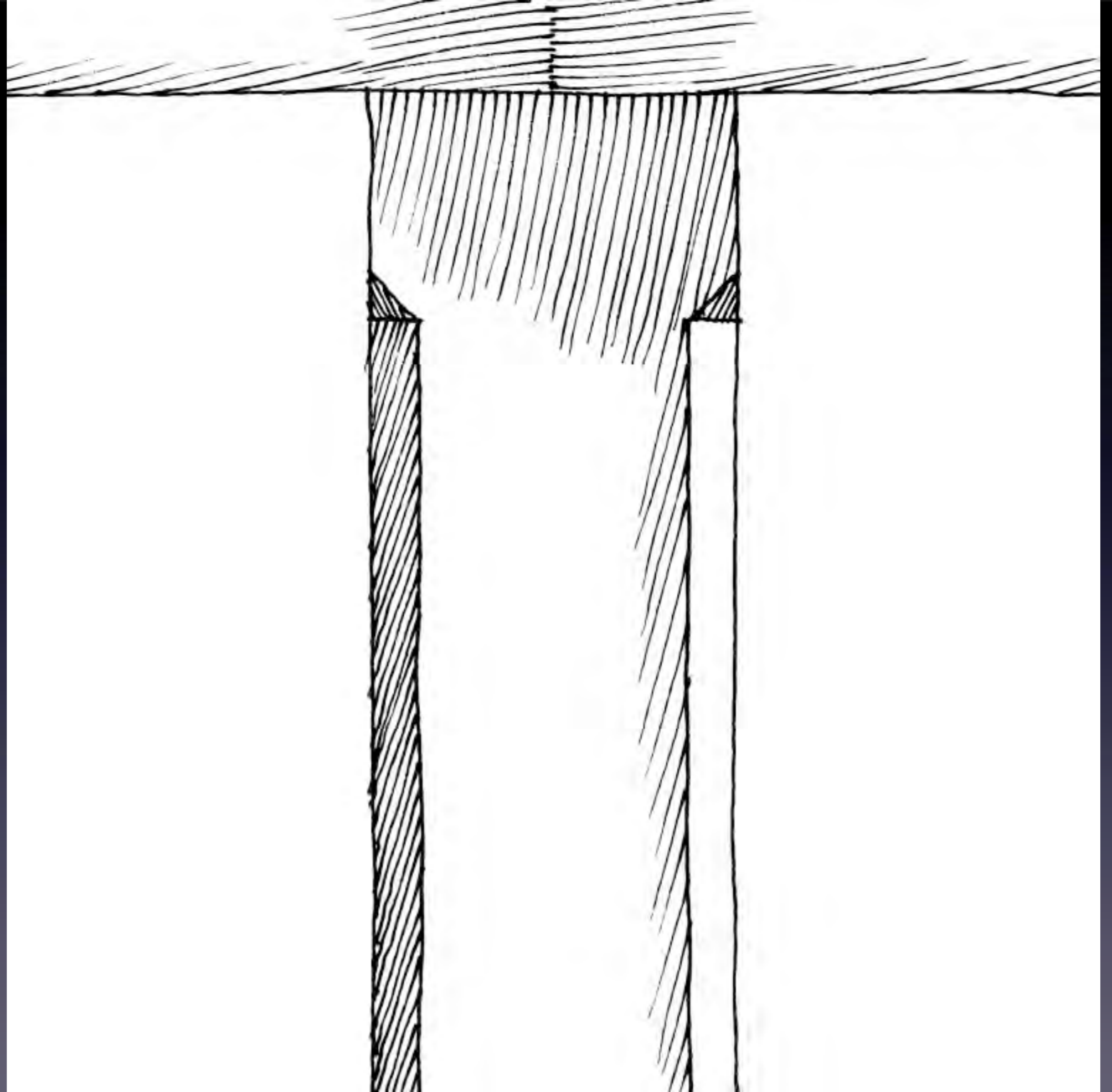
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Chamfer



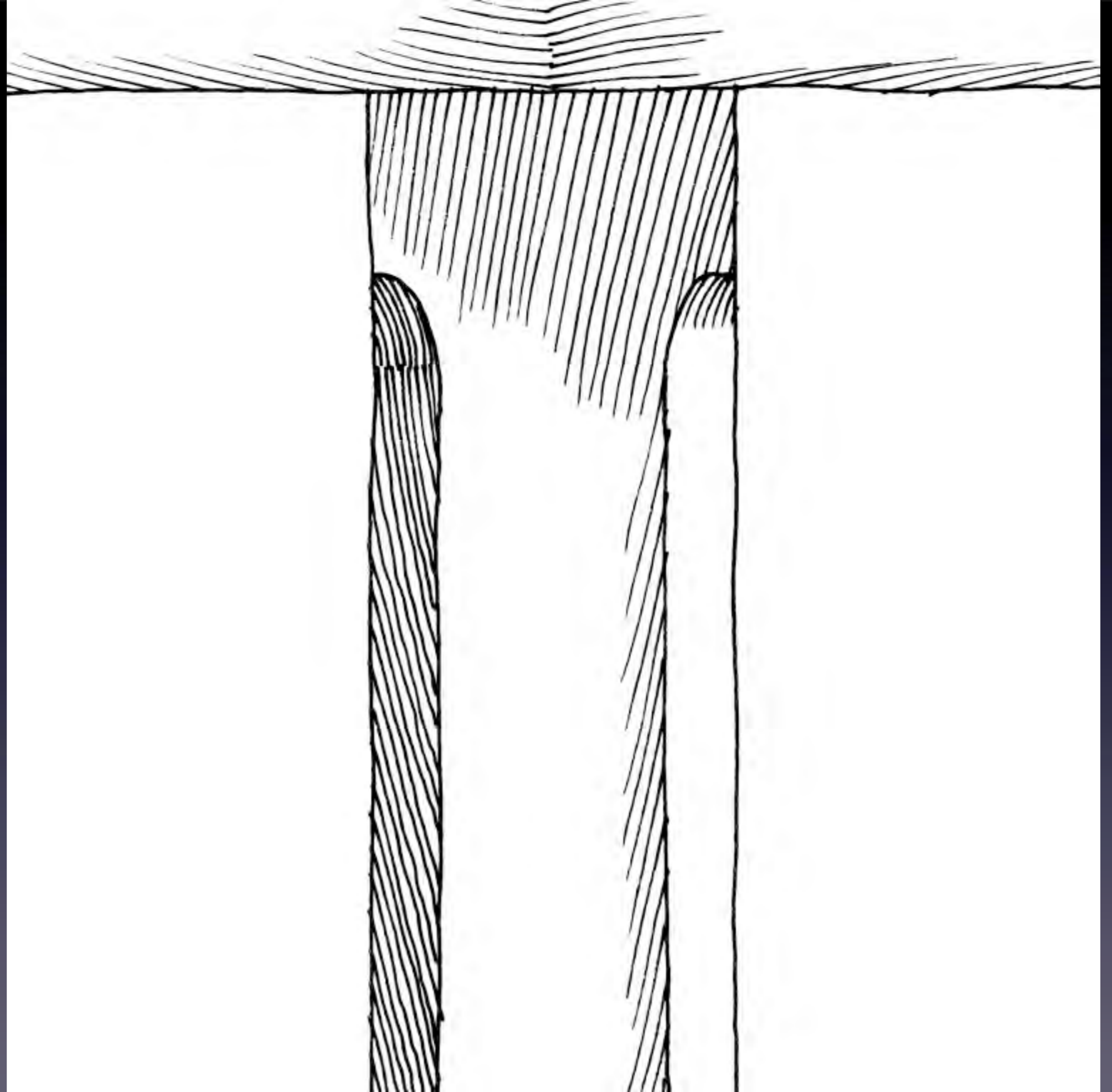
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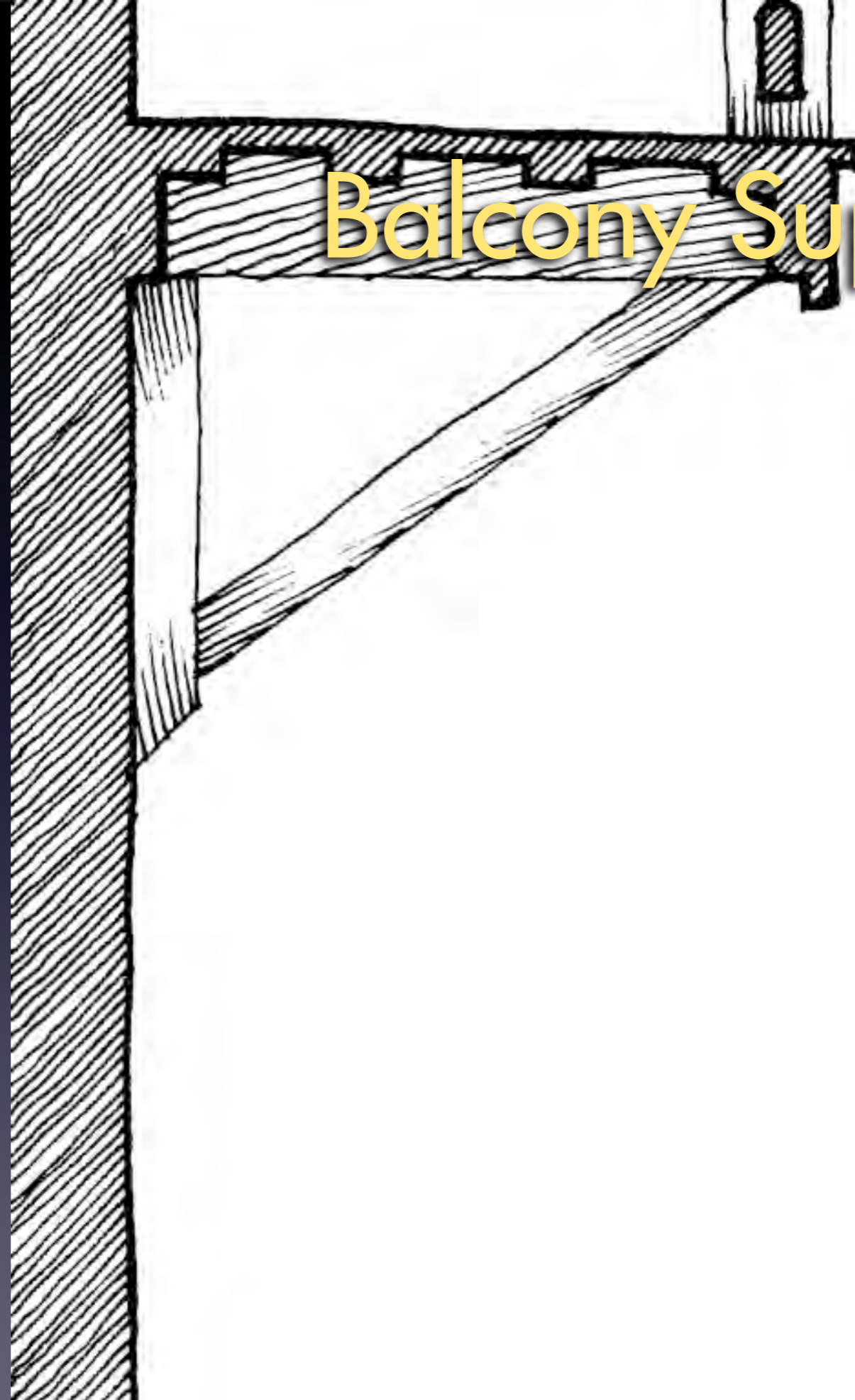
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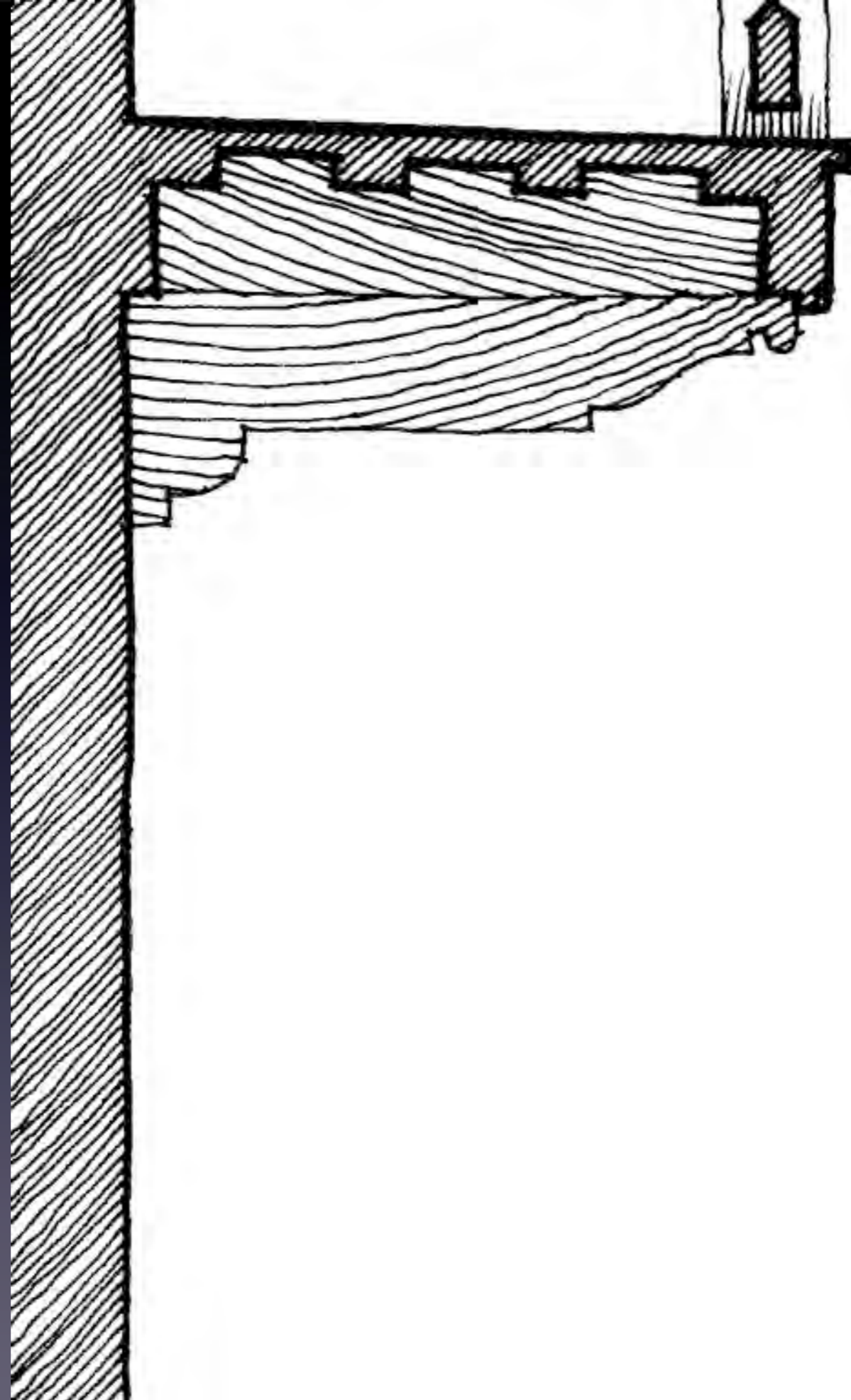
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Balcony Support



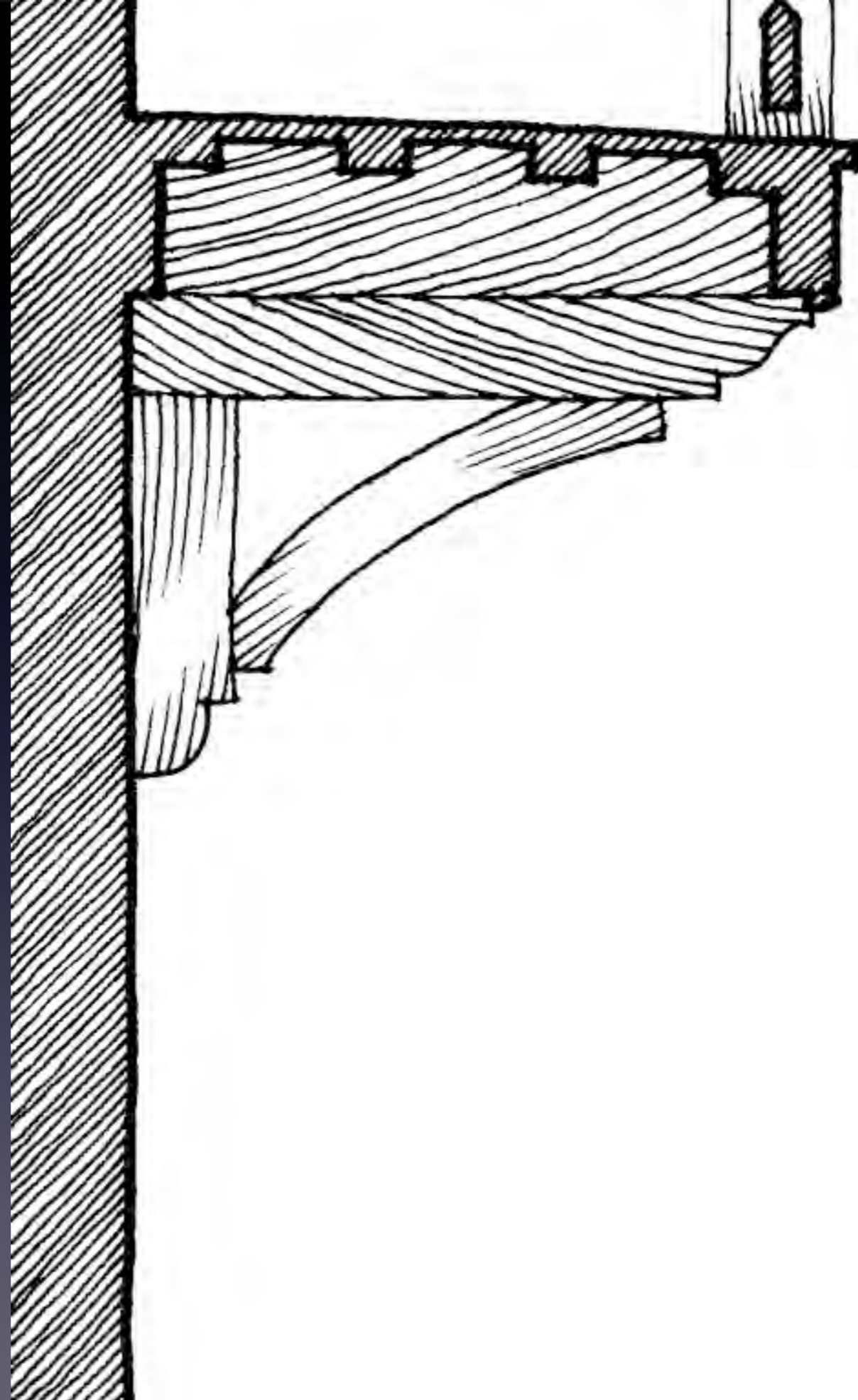
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Winners

- * Life-Cycle Cost
- * Resilience



Life-Cycle Costs

- * 100% for 50 years = 2.0%/year
- * 200% for 1000 years = 0.2%/year





Evaluations

Strategies for Buildings that Endure
TBPESD2

Please complete our form or submit your comments to the AIA CES system.
Thanks.



Thank you for your time!

QUESTIONS??

This concludes The American Institute of Architects
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Resources

- * Links (lots of useful organizations): <http://bit.ly/GFLinks>
- * Reading List: <http://bit.ly/GFReadingList>
- * Original Green: <http://www.originalgreen.org>
- * New Urban Guild: <http://bit.ly/NUGHome>
- * Mouzon Design: <http://bit.ly/MDZHome>
- * Useful Stuff: <http://bit.ly/UsefulStuff>

If you want live links rather than having to write all these down, please email me at steve@mouzon.com and I'll be happy to send them, as well as a few other resources you might find helpful.



What Next?

1. Subscribe to Original Green Blog.
2. Join your local ICA/CA chapter.
3. Join your local CNU chapter.
4. Get listed on TradWeb.

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