



# HUSK PRESERVATION, INC.

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## SELECT PROJECTS DESCRIPTIONS

*Updated December 2022*

### MILLWRIGHTING

**Shelter Island Windmill, NY 9/22-11/22**

Replace sill and scarf in new studs. Jack entire windmill, relevel to free up bound vertical drive.

**Plimoth Grist Mill, MA 1/22**

Dress stones, tram spindle, balance runner, maintenance neck bearing.

**Nantucket Windmill, MA 7/21**

Perform conditions assessment and prepare report with recommendations for repair.

**Waterworks at Historic Bethlehem, PA 7/21**

Align clasp arm waterwheel on drive shaft and tightened floats. Adjust gear alignment, tightened wedges, lubricate.

**Trovinger Mill, MD 7/21**

Perform conditions assessment and prepare report with repair recommendations.

**Moscow Mill, VT 5/21**

Perform condition assessment and prepare report on existing machinery and recommendations for preservation.

**Waln Mill at Historic Walnford, NJ 4/21**

Repair and replace elevator belts. Maintenance and align drive shafts, pulley wheels and machines.

**Ledyard Sawmill, Ct 4/21**

Redesign husk frame, prepare drawings and recommendations.

**Shelter Island Windmill, NY 12/20-3/21**

Work with millwright Jim Kricker of RondOut Woodworking to remove existent windshaft, weather beam and neck bearing, repair post and braces that intersect weather beam with scarfs, assemble new sails, install new weather beam, neck bearing, windshaft, and sails.

**Roslyn Grist Mill, Roslyn, NY 4/19-present**

Disassemble timber frame husk. Dendro date timbers. Repair timber frame. Remove all posts from structure for repair.

**Consulting Roslyn Grist Mill, NY 3/19**

Complete conditions assessment of husk/hurst frame and milling infrastructure in husk area. Provide recommendations for disassembly, storage, and repair.

**Stony Brook Grist Mill, Stony Brook, NY 8/19**

Dress millstones, assess mill, prepare maintenance plan, prepare interpretation concepts.

**Fulwell Windmill, Sunderland, UK (c.1810) 1/18-5/18**

*Scope of project - new-build cap and new-build sails. My work commenced after cap was largely completed and installed, and sails were in process of being built.*

- Build four new sails (stocks ~40' /whips ~30') and patent shutters, paint, install
- Center wallower and adjust height on the upright shaft. Align brake wheel to wallower.
- Center cap by jacking into alignment. Rotate cap and check centering wheels. Move centering wheel mounts as needed and add additional metal tires/bands to centering wheels where needed. Shim skate plates.
- Change configuration of brake lever. Add brake block to prevent over rotation. Situate brake in position, and install brake ironmongery on new shears. Attach new brake catch and set up pulley system for lifting brake lever.
- Add framing to cap to support striking mechanism. Add gearing, shafts, bearings, collars, rack and pinion, etc. to actuate patent shutters. Mount crank wheel and chain.
- Pin cogs on brake wheel.
- Install rails on fan stage.
- Flash hatches on cap.
- Change out grease nipples to high-pressure system.

**Herne Windmill, Herne Bay, UK (c.1790) 6/18-7/18**

- Remove sails (stocks ~40' /whips ~30'). Repair rot in whips, uplongs, hemlath, sail bars and back staves with scarfed material and new members. Paint.
- Make and install two replacement fans blades for fantail.
- Assess weathered whips for durability - built and subjected to same conditions (2-laminates and 2-solid pitch pine).

**Draper Windmill, Margate, UK (c.1850) 2/18-5/18**

- Repair sails and shutter frames and recanvass. Paint.
- Install sails (stocks ~40'/whips ~30')
- Add a block/stop to brake band to prevent over rotation.
- Calibrate striking mechanism for optimal use of patent shutters.
- Address alignment of wallower to brake wheel.

**Brixton Windmill, London, UK (c.1820) 6/18**

Remove sails (stocks ~40'/whips ~30')

**Chillenden Post Mill, Canterbury, UK (c.1870) 5/18-6/18**

- Balance inactive, headsick post mill. Jack up structure and resituated runner stones to disperse weight.
- Build new ~16' x 5' stairs/"ladder" with mortised stringers. Paint. Remove deteriorated ladder and replace.

**Wandsworth Pumping Windmill, London, UK (c.1830) 5/18-6/18**

- Mill weatherboard. Replace deteriorated weatherboards and trim. Tar building. Replace skirt and flashing.
- Remove and replace iron ties from sills into masonry. Replace oak lintels for ties.

**The Mill at Elstead, Water Mill, Godalming, UK (c.1650) 6/18**

- Address wear in bearing on drive shaft for undershot wheel (~12' diameter) and pit gear (~15'). Wear in bearing caused the pit wheel to drop and rub on sluice gate. Jack up wheel and shim beneath bearing. Cut away material in bearing box and shift bearing.
- Replace air pressured oil cartridges and manually oil bearings.

**Bradwell Windmill, Milton Keynes, UK (c.1800) 3/18**

- Make new patent shutters for sails. Prepare jig and route frames to receive shutter furniture. Paint. Install on sails in situ.
- Straighten compromised rods and replace mounts for actuating the sprung shutters.
- Drill holes in the stone and epoxy sleeves/liners in holes to be used with new stone crane.
- Assess linseed vs. conventional oil based paint systems (sails and stocks were painted at same time four years prior using two different paint systems).

**Wilton Windmill, Marlborough, UK (c.1820) 3/18**

- Repairs in situ to shear brakes on sail. Repairs sail bars and scarf on new sections of hemlath and uplong. Reinstall shutters.
- Remove deteriorated tail fan blades, fabricate replacements and replace

**Wimbledon Windmill, London, UK (c.1820) 4/18**

Perform general maintenance, oiling, turning sails, repair high-pressure nipple fix points to tail fan bearings.

**Hatch Sawmill, MA (1812)**

- Move historic carriage and husk back into mill from off site storage
- Move historic belt driven woodworking machinery into mill from off site
- Move 4000lbs mill stone to site
- Assist (as an apprentice 2015) in structural and exterior restoration

**MASONRY**

**Winslow House Chimney, Marshfield, MA (c 1700) 6/22 & 11/22**

Remove plaster, repoint, replaster and rebuild sections of the chimney at the attic level.

**North St. Plymouth, MA - Private Residence (1782) 4/22**

Replace disintegrating marble hearth with new slab, repair water damaged ceiling plaster, consolidate distemper paint.

**Main St. Nantucket, MA - Private Residence (1838) 3/17-6/17; 9/17-1/18, 2/19**

- Excavate soil and underpin foundation with granite block - without jacking - to increase basement height by 3'. Shape/cut granite for use in foundation. Build granite 3' wall below framing for new partition wall. Support chimney masses with I-beams and underpin with brickwork and concrete pad. Level floor and insulate in preparation for in-floor infrastructure and concrete pad.
- Waterproof exterior of foundation.
- Raise roof system jacking off of temporary truss. Shore up original ridge beam with LVL and steel plate and refasten rafters.

- Line/parge using fat lime 4 chimney masses/11 flues/3 stories. Rebuild two chimneys back above roofline. Render exteriors.
- Replace deteriorated portions of sills and posts scarfing in new wood joining to old.
- Build locust timber frame stairs to second story entrance.

**Marblehead, MA 6/20-10/20**

Completely rebuild beehive oven. Line two flues of chimney with lime mortar. Redo hearth floor. Install top mount dampers and chimney extension. Rebuild top of arch supporting chimney mass. Install reclaimed flooring. Install brick floor, herring bone pattern.

**Jacobs Farmhouse Museum, Nowell, MA 7/19, 9/19**

Rebuild sections of chimney below roofline. Repoint above roofline, lead flashing and reshingle immediate area. Replaster interior spaces ceiling and walls where plaster failed. Open chimney base, and line flue with flexible stainless steel liner.

**Winslow House Museum, Marshfield, MA 2/21; 6/22**

- Remove chimney cap, replace with custom design and fabricated copper cap.
- Remove loose lime plaster, and all cement plaster on attic level of chimney. Repoint and plaster.
- Repoint all fire boxes where needed.

**Main St. Nantucket - Private Residence (c.1850) 5/17**

Repair damaged in situ plaster moldings and decorative plaster elements with gypsum and gauged mixes.

**1800's House, Norwell, MA 3/19, 11/19**

Repoint barn stone foundations. Limewash chimney mass.

**Jordan Rd. Plymouth - Private Residence (c.1842) intermittent**

Construct new 2-flue chimney for masonry stove.

## TIMBER FRAMING

**New Build, Marshfield, MA 6/21-9/21**

Lean-to timber scribe rule frame with naturally curved black walnut braces and live edge cedar posts.

**1749 Courthouse, Plymouth, MA 12/19-1/20**

Repair flying purlins, repair eve ends of the bottom chord of truss with scarf joint. Repair ceiling plaster.

**Dominy House Frame Replica (c. 1715), East Hampton, NY, under NJ Barn Co. 3/19-4/19**

Cut joinery in white oak frame (rafters, posts, plates, girts), scribe studs.

**Standish Rd. Duxbury - Private Residence (c.1835) 6/17-8/17**

*Structure was moved. Back 7' of structure was cut off and separated for clearance during transportation.* Repair first-floor system including full and partial sill replacements. Replace failing floor joists. Scarf post and stud bottoms. Re-establish the back 7' of structure with new sills and joists. Replace gunstock posts in full and/or with scarfs. Hew new plates. Scribe posts and ties. Scarf new material into original tie beams. Join cut tie beams by butting and joining with steel T-shaped plates rabbeted in, thru-bolted and

lugged. Scarf original rafters and install replacement rafters. Install new and reused purlins.

**Pilgrim Hall Museum, Plymouth 11/17**

Erect and later deconstruct a temporary exhibit of a 17th Century replica of Gedney House oak timber frame parlor. Maneuver 800lb summer beam and other framing members from storage to transport to location through museum galleries.

**Jacobean/Shakespeare Stage, Worcester (replica 16th C) *intermittent 2015, 2015, 2018, 2019***

Annually erect and deconstruct timber frame stage and seating galleries.

**CARPENTRY & OTHER**

**Trestle Bridge, San Jose, CA 7/22**

Project lead Douglas Porter, Research Assistant Professor in the Department of Civil and Environmental Engineering at UVM, along with Ron Anthony, Wood Scientist at Anthony & Associates, Inc., Adam King, Director at Arcadia Restorations and Joseph Cotter, Consultant at Porter & Associates. Amy Boyce of Husk Preservation, INC. joined the project to assist with a non-destructive evaluation of a 1920's era railroad trestle bridge. Amy was involved in the evaluation including sampling using resistance drills.

**Country Way, Scituate, MA 10/21-2/22**

Disassemble historic house to save from demolition. Historic components of the house are saved and stored.

**Union St, Marshfield, MA 12/19-3/20**

Disassemble mid-1700's house to save from demolition. Disassemble every element down to saving all cut and forged nails all lath. Every component of the house is saved and stored. Dendrochronology dated to 1743. Draw and document house.

**Winslow House Museum, Marshfield, MA 5/19**

Shingle main house and ell.

**1700's House, Kingston, MA 5/19, 12/19**

Repair gable sills. Reshingle gable end. Install plank frame windows. Insulate, strap and shingle roof of ell.

**Powder House, Kingston (c.1800) 6/17**

*Structure was moved from original location.*

Cut structure to separate from 20th Century addition. Install leveled granite posts in ground as new foundation. Establish rail system to roll structure on. Lower cribbed structure onto rail system and roll and lower onto new foundation.

**Watson Privy, Plymouth (early 18th C) 12/17**

Plane, skive and install clapboards. Raise structure to address failure in foundation brickwork. Replace sills and joists. Reglaze windows original 18th sashes and original glass.