

POSITION

The method half of preservation

Every institution humanity has built to prevent erasure preserves artifacts. Museums, archives, conservation laboratories, world heritage listing, digital preservation, the national documentation surveys — all of them record the thing. Almost nothing records the doing. The consequence is visible in every case where a civilization kept the object and lost the capability to make it, and it is the gap this register exists to close.

The finding, in one sentence. The Historic American Buildings Survey and the Historic American Engineering Record have documented American historic structures since 1933 — measured drawings, large-format photographs, written history, deposited permanently at the Library of Congress, copyright-free and publicly accessible, routinely required of federal agencies as Section 106 mitigation — and in ninety-three years not one line of that record describes how a person did the work or who taught them.

How capability is lost, and why the object does not save it

The pattern is consistent across every well-documented case and it has three parts.

1. **The knowledge was tacit and held in a closed body**, frequently on purpose. Masons' lodges guarded constructive geometry as economic protection. Guild structures were transmission systems and secrecy systems at once.
2. **Demand stopped.** No more pyramids, no more cathedrals, no more wootz crucible steel. A chain that survives only through continuous use breaks within one or two generations of the last commission.
3. **What survived was the artifact.** The Great Pyramid stands and its construction method remains unresolved. Roman marine concrete outlasted the empire by two millennia, and the lime-clast mechanism that lets it heal its own cracks was only identified in 2023. Damascus blades sit in collections and are not reproducible. In each case the object outlived the capability by a very long time and turned out to be an almost useless record of the method.

Notre-Dame proves the asymmetry in both directions at once

It is a better example than the ancient cases because the evidence is complete and recent.

The geometry survived, and survived well. The thirteenth-century roof frame was surveyed by Rémi Fromont and Cédric Trentesaux in 2015 and published in 2016. Henri Deneux had surveyed it in 1915. There were 150 three-dimensional scans from 2014 and a dendrochronological study from 1995. The assessment afterwards was that a complete and accurate survey of the framework had indeed been completed. Four years before the fire, by the accident of scholarship rather than by any preservation mandate, the shape was saved.

The method did not survive. The same assessment records that archaeological, traceological — tool-mark — and dendrological analysis had yet to be done, along with study of the construction procedures and the organization of the site. How the frame was made had to be reconstructed after the fire by comparative analysis of other thirteenth-century roofs at Lisieux, Rouen, Bourges and Bayeux.

And the living capability had nearly gone. Hewing green oak by axe had almost disappeared in France. It survived because one volunteer association, Charpentiers Sans Frontières, had been promoting its revival since 1992, and a substantial share of the sixty-odd carpenters who raised the new roof were recruited through it.

So: an excellent record of the object, no record of the doing, and the doing itself hanging on a single thread of volunteers. The reconstruction succeeded. It is worth asking what would have happened had the fire come thirty years earlier, before 1992.

PRECEDENT

The only civilization that solved this spent enormously to do so

Ise Jingu has been rebuilt every twenty years since the reign of Emperor Tenmu in the late seventh century — roughly thirteen centuries, some ten thousand hinoki cypress each cycle, more than eight years of preparation each time. The stated purpose is not that the buildings decay, though they do. It is that the *transmission* decays. Twenty years is one generational handover: a craftsman attends first as an apprentice, returns as a journeyman, and returns a third time as the master who hands it on. The reported words of an elder to the young at the last rebuilding — that he would leave these duties to them next time — are the mechanism stated plainly.

That is the only running instance of deliberate transmission infrastructure at civilizational scale, and its cost is the honest price of the outcome. The register is an attempt to reach the same result without rebuilding the shrine.

The shape of the hole, in American law

The gap is not abstract. It has a precise shape in an institution that already exists, is already funded, and already commands the permanence and public-access commitments the Transmission Standard independently arrived at.

	HABS / HAER, since 1933	What is absent
What is recorded	Measured drawings; large-format photographs; written historical data	No account of how the work was performed, by what sequence, to what cues, with what tools prepared in what way
Who is named	The structure, its architect, its owners, its history	Not the people who could build it, and not who taught them
When it is produced	Routinely required of federal agencies as Section 106 mitigation before a historic property is altered or demolished	The obligation attaches to the fabric. Nothing attaches to the capability, which may be lost in the same decade
Where it goes	Deposited at the Library of Congress, permanent, copyright-free, publicly accessible	The deposit mechanism is proven. It simply has nothing of this kind to hold

The register is that record. A Practice Record carries seventeen mandatory fields — preconditions, materials specified rather than named, every tool including how it is dressed or ground and to what geometry, the sequence, the sensory cues in the master's own words, the failure modes at the earliest point they can be detected, the conditional judgment, the acceptance criteria, the reasoning, the method's own lineage, the elicitation transcript including the questions declined, the master's line-by-line ratification, and the reproduction-test result. It conforms only when a competent practitioner of the same trade who never met the master could attempt the practice from the record alone. That is a documentation standard of the same species as a measured drawing, aimed at the other half of the problem.

PATH

A mandate by amendment rather than by invention

A register of this kind becomes consequential when deposit stops being optional. That has been true of every registry that mattered: the identifier became a precondition of something the payer had to do anyway. The question is therefore not whether an obligation can be created, but where one already exists that can be extended.

Extending a documentation regime that already compels a deposit is a different order of difficulty from persuading a new party to create one. Section 106 mitigation already requires federal agencies to produce permanent public documentation of what is about to be altered or lost. State historic tax credit programs, preservation easements and conservation charters already condition public benefit on documentation of intervention. In every case the documentation records the fabric. In every case a method record is an addition to an existing schedule rather than a new legal instrument.

Two consequences follow. The first is that the natural counterparties are the bodies that write those schedules — the documentation programs, the state historic preservation offices, the standard-setting charters — rather than commercial buyers who must first be convinced the category exists. The second is that the argument to be made is unusually simple, because it does not ask anyone to believe anything new: the drawings are required because the building may be lost, and the same reasoning applies with greater force to a capability that will be lost sooner and cannot be photographed.

The demand that arrives with the mandate

Assessing this market against the budgets of craft charities understates it by three orders of magnitude. The relevant buyers are the bodies that commission work in traditional method at scale and discover they cannot source the trades.

- **Major restoration campaigns.** Notre-Dame required the reconstitution of a near-extinct carpentry practice before it could begin. Every comparable campaign faces the same question, and none of them currently produces a durable record of the answer.
- **Sovereign heritage programs and giga-projects.** Diriyah, reported at some \$63 billion, is a state deciding to build at scale in traditional Najdi earthen construction and having to reconstitute the craft to do it. That is the historical pattern recurring with a budget, in the direction that requires publication rather than forbidding it.
- **National documentation and collections bodies,** whose mandate is already permanence and public access, and whose existing deposit machinery has no method record to hold.
- **Industrial and utility asset owners** facing the same loss in transformers, hydro plant, legacy turbines and millwright work, where the knowledge is undocumented rather than secret and can therefore be published.

The industrial group matters for a different reason than the others: it pays sooner and it pays more. It is the engine, not the purpose.

The engine, and the floor that keeps it honest

Access cannot be sold and should not be. The corpus is licensed share-alike, the register's public fields export freely every day, at least three independent parties hold complete mirrors, and every requirement to maintain standing has a route that costs nothing. What is unconstrained is **deposit**: no organization is entitled to a free capture of its own masters. Revenue therefore attaches to the act of recording rather than to the reading of the record, which is the structure of every durable deposit registry.

That structure carries an obvious hazard, and §15.9 now answers it. Every other constraint in the Standard was written against capture by those who read the register. None of them prevented capture by those who pay for it — a corpus that had become overwhelmingly one sponsor's sealed industrial method would have breached no clause in the document while ceasing to be the thing the document describes. The floor is one unsponsored, unembargoed Practice Record published for every sponsored one, no sponsor above a fifth of a year's records and no domain above a third, both figures published annually whether met or not, and no further sponsored commission accepted while the floor stands unmet.

That clause is what makes the commercial engine and the original purpose the same machine. Industrial deposit funds the capture of what nobody will pay to capture. The ratio is published, so the claim is checkable by anyone, including by parties hostile to it.

EVIDENCE

What is established, and what is not

Three things are established. The category is real and unoccupied: no American body maintains a record of craft method at reproducible depth, and the United States never ratified the 2003 intangible heritage convention, so none is obliged to. The assessment layer exists and runs unattended: forty-eight trades assessed against published federal data by a published rule — three critically endangered, twelve endangered, and eight that no federal occupation code reaches at all, alongside ten further named practices that reach no code either. And the documentation specification exists, at version 0.9, with the conformance test written down.

One thing is not established, and it decides everything. No Practice Record has yet been produced. The cost of producing one at scale is unknown, and the two plausible answers are separated by an order of magnitude. If the labor falls as the corpus grows — because the elicitation is performed by the successor who is being taught anyway, because the reproduction attempt is the apprenticeship, and because structuring a transcript against several hundred in-trade exemplars becomes mechanical — then the registrar's cost per record falls toward a few hundred dollars and the model works. If it does not fall, the register must employ interviewers, the cost stays in the low thousands per record permanently, and this is a services firm with a modest ceiling.

The test that resolves it, and its falsifiers. Ten Practice Records in sixty days, in a single trade, with two criteria fixed in advance: the share reaching conformance without a registrar-led re-interview, and the median days from capture to the master's ratification. Below sixty per cent on the first, or above forty-five days on the second, the cost curve does not bend and the conclusion should be accepted rather than argued with. Nothing else available to the register carries comparable information value, and the population being recorded is diminishing while the question stays open.

The honest shape of the outcome

A deposit registry without a mandate is a durable institution of modest size; the world's scholarly deposit registry, quasi-mandatory and twenty-five years established, runs on roughly fourteen million dollars a year. A deposit registry with paid industrial capture alongside it is a business of tens of millions in revenue, on an agency margin, over a decade. A deposit registry whose record has been written into an existing documentation mandate is a different object entirely, and is the only version that reaches the scale the category deserves.

The sequence matters more than the projection. The mandate is not available until records exist; records are not credible until one has passed the conformance test; and the practitioners whose knowledge would populate the first hundred records are the oldest people in their trades.

Conclusion

The case for this register does not rest on a labor shortage, an insurance exposure or a data product. It rests on a ninety-three-year-old asymmetry in what humanity chooses to write down. Drawings of a roof frame survived a fire that destroyed the roof; the knowledge of how to cut one survived on a volunteer association founded in 1992. The first of those was deliberate. The second was luck, and luck is not a preservation strategy.

The register should therefore be positioned, argued and built as the method half of preservation — against HABS and HAER, in the language of documentation rather than of data, aimed at the bodies that already compel a permanent public record and have never compelled this one. The commercial engine funds it. The composition floor keeps it honest. The cost-curve test decides whether it is buildable at all, and should be run before anything else.

Root & Branch Register Inc. · Position paper, September 2026 · Conformed to Transmission Standard v0.7. Principal sources: National Park Service Heritage Documentation Programs on HABS/HAER/HALS and Section 106 mitigation; CNRS on the documentation and reconstruction of the Notre-Dame framework; The Art Newspaper on the revival of green-wood axe carpentry and Charpentiers Sans Frontières; Japan for Sustainability on the Shikinen Sengu at Ise Jingu; published reporting on the Diriyah development; BLS Occupational Employment and Wage Statistics, BLS Employment Projections, the apprenticeship.gov sponsor index and IPEDS completions for the assessment layer. Figures attributed to reporting are given as reported.