Wear as information.

We did not invent the idea that a tool should show its use. We are simply, as far as we can tell, among the very few who have sold it. The idea has been sitting in the literature for thirty years, waiting.

This page is the paper trail. If you find the Patina interesting, you should know it has ancestors — and that the people who thought of it first said it better than we do. Their work is linked throughout; most of it is free to read.

1992: the worn stairs

The founding text is a paper called Edit Wear and Read Wear, presented by William Hill, James Hollan, Dave Wroblewski and Tim McCandless at CHI in 1992. Their argument was made by analogy, and the analogy is the one everybody reaches for eventually: the stone step hollowed by feet, the spine cracked where a book falls open, the recipe card stained at the recipe you actually cook.

Their point was not that wear is charming. It was that wear is *information* — and information of a kind no separate log file can give you, because it lives in the object rather than beside it. A document that shows where it has been read tells you something the document itself knows. Ask a server the same question and you get a different kind of answer, owned by somebody else.

1998: somebody names it

Six years later a master's thesis at the MIT Media Lab took the metaphor and gave it the word we now use. Arjan Schütte's Patina: Layering a History-of-Use on Digital Objects is the closest thing to a foundational text on this exact idea, and it is a pleasure to read.

An honest note, because we would rather be accurate than impressive: **"digital patina" is not an established term of art in academic computing.** There is no canonical peer-reviewed paper by that name and no field that agrees on it. The defensible lineage is Hill and colleagues for wear-as-information, and Schütte for the word. Anyone claiming a deeper pedigree — us included — would be overstating it.

2001: slow on purpose

Then Lars Hallnäs and Johan Redström published Slow Technology — Designing for Reflection in *Personal and Ubiquitous Computing*, and widened the argument

considerably. As computing moved into the furniture of everyday life, they said, some of it should be designed for presence and reflection over long stretches of time rather than for efficiency in the moment. Technology you live alongside, rather than technology you dispatch.

That is a design brief for an object that is allowed to get older. Almost nothing in consumer software has ever taken it.

2014: traces as a material

More recently, Elisa Giaccardi, Elvin Karana, Holly Robbins and Patrizia D'Olivo argued in Growing traces on objects of daily use (DIS 2014) that traces of use are a design resource in their own right — something to be worked with deliberately, like grain or weight. Their subject is physical products. The obvious extension to software is still, thirty-two years after Hill's paper, mostly unbuilt.

So why did nobody ship it?

We can only guess, but the guess is not complicated. Wear requires that the object persist and that it belong to one person. Software spent twenty years moving in the opposite direction: onto servers, into accounts, behind logins, updated silently every Tuesday, identical for everybody. You cannot wear a thing you only rent, and there is no point ageing an interface that is replaced next quarter.

The commercial incentive points the other way too. A record of what you actually use is valuable — to somebody. Kept in the object, it is yours and worth nothing to anyone else. Kept on a server, it is an asset. Guess which version got built.

What we did with it

The Patina is our attempt at the 1992 idea with the 2001 brief. Blades wear where you reach for them and stay factory-bright where you don't. Entries in the Garden bloom when tended and wilt when neglected. The wear is computed inside the file, stored inside the file, and survives reforging — so a knife rebuilt in year three still carries its three years.

The part that matters most is the part that sounds like a limitation: there is no server, so there is nowhere for the record to go. Nobody but the owner can ever see it. That is not a privacy feature bolted on afterwards. It is the only arrangement under which wear is honest.

Where to read more

The Patina — overview — How the wear actually works, blade by blade.

Software that ages with you — The mechanic in detail — bands, reforging, quiet steel.

Tools that remember — Why a tool showing its use is not a tool tracking you.

Aging Software and the Digital Heirloom — The full lineage document, with all fourteen references.

Common questions

Is digital patina a real academic concept?

Partly. Wear as information was proposed by Hill, Hollan, Wroblewski and McCandless at CHI 1992, and Arjan Schütte's 1998 MIT thesis named patina specifically. But there is no established academic field or agreed definition behind the phrase, and it would be overstating things to claim one.

Who first proposed that software should show its use?

Hill, Hollan, Wroblewski and McCandless, in a 1992 CHI paper called Edit Wear and Read Wear. They argued by analogy to worn stairs and cracked book spines that use histories are information best kept in the object itself.

What is slow technology?

A design position published by Lars Hallnäs and Johan Redström in 2001: that some technology should be designed for reflection and long-term presence rather than efficiency, so that people live alongside it rather than dispatch it.

Why is wear rare in software?

Wear needs an object that persists and belongs to one person. Software moved onto servers and into accounts, where nothing persists locally and everything is identical for everyone. A usage record kept on a server is also commercially valuable, which is why that version got built instead.

Does the Patina send my usage anywhere?

No. There is no server and no network call. The wear is computed and stored inside your own file, and nobody but you can see it.

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