

## Chapter 9 Made to Last

### Part 4 : Making things easy to repair

Unlike some of the manufactured products you find these days which seem to have been made without a thought for repair when they break down, in the past things were made as easy as possible to repair on the premise that they can and will break down sometime. In an age when people depended just on recent solar energy, the bizarre logic of generating prosperity through throwing things away when they broke just didn't hold. It made clear economic sense to go on using the same things as long as possible.

In the town in which I spent my junior and senior high school days, there was a store selling chests of drawers made of paulownia wood. However, since retail sales were not the main part of the business, the store could be better described as a workshop, and since it opened out onto the main street of the local shopping district, it was easy to see what was going on inside. I used to pass by the store every day, and so I knew that its craftsmen not only made new chests, but also spent much of their time refurbishing old chests.

The panels of such chests turn a kind of blackish brown with accumulated soot over the years, but as the workers swept their planes over their surfaces, shaving only the bare minimum, the natural whitish color of paulownia wood would emerge like a new skin, and it was almost as if a new chest of drawers was being reincarnated before your eyes. Even nowadays, you can find specialists furniture restorers who will restore paulownia chests. Unlike furniture produced these days that seems to be intentionally designed to break easily, traditional furniture such as paulownia chests was made to last a lifetime, and could be restored to mint condition even after decades of use.

It was usual in the past, in fact, to repair anything, and not just expensive items like paulownia chests. Umbrellas, for example, would be repeatedly repaired. In an age when experienced carpenters earned a daily wage of 500-600 mon, umbrellas cost 200-300 mon, which means that while they were not particularly expensive items, they were nevertheless not the kind of thing one would throw away without a care. They were made of bamboo and paper, which means that no matter how sturdily made they were, their life spans were limited, particularly in view of the fact that they were repeatedly exposed to rain. The paper used was sturdy Japanese paper treated with persimmon tannin and wood oil, but even so, as it aged, it would become increasingly brittle and prone to tearing.

These days, umbrellas are made from metal, cloth and plastic, with the cheapest not even using cloth. Up to about 1980, you could see umbrella repairmen with their tools set out on a sidewalk, plying their trade, and at that time there were still plenty of people who would seek out such artisans when their umbrellas broke. Nowadays, however, judging from the number of umbrellas you see among the items disposed of on "non-combustible garbage" collection days, many people just throw them away when they break.

Unlike the prosperous present day, when it's cheaper to buy even a new metal and cloth umbrella than repair a broken one, people in the Edo period would use bamboo and paper umbrellas, as they did yukata, right to the very end.

If the paper of an umbrella had torn through prolonged use, people would ask traveling paper lantern repairmen to repair them. Since repapering of both lanterns and umbrellas involves basically the same principle of applying paper to a bamboo framework, paper lantern salesmen apparently used to repair umbrellas too, as proven by the existence of old illustrations depicting such repairmen mending umbrellas as well as lanterns.

With repeated repapering, an Edo period umbrella had a long enough life span that it would begin to show wear and tear in other areas, the threads holding spokes together, or the spokes themselves, giving way in time. Repair was not so easy in many such cases, but people still didn't just throw old umbrellas out, selling them instead to old umbrella buyers who would go around neighborhoods calling out "Umbrellas! Old umbrellas!"

The buyers would buy old umbrellas at any of three prices depending on condition – 12 mon for the best, followed by 8 mon and 4 mon, increments of four being used apparently to facilitate payment with the 4 mon coins that were the currency of the time.

Even Edo period people couldn't think of any other use than as firewood for umbrellas so worn and torn that they couldn't even fetch 4 mon. An illustration in a ghost story of that period shows an umbrella ghost wearing a single traditional wooden clog, perhaps suggesting that an old umbrella's greatest wish would be to be used long enough to become a ghost.

The old umbrella buyers would sell their wares to wholesale merchants who employed artisans to remove any remaining oil paper and replace any broken threads and spokes. Throwing things out was not even conceivable in that age, and umbrellas were made in such a way that threads and spokes could be easily replaced.

Apparently the old oil paper too was recycled to butchers to wrap meat up in. Very little meat was consumed in the Edo period, but there were people who purchased it as a kind of dietary supplement known as kusuri-gui (= medicine food), and in Edo and Osaka there were also shops selling the meat of wild boar, deer and other hunted wildlife. Such shops used old oil paper, which was largely odor-free as a result of its age, like we use plastic wrap today – an admirable example of out-and-out re-use if ever there was one.

The old umbrella frames, once refurbished, were then sent to subcontractors for repapering. You sometimes see scenes in films and TV period dramas featuring ronin (masterless samurai) stretching paper over umbrella frames in back alleys, and those are apparently depicting umbrella repapering. The fact that several Edo period kabuki plays contain lines mentioning ronin eking out a living repapering old umbrella frames suggests that this was more common piecework than making new umbrellas. The repapered umbrellas were sent back to the wholesale merchants, and then sold at a fraction the price of a new umbrella.

Even though umbrellas were recycled, spokes and shaft were in the end made only of bamboo, which means they didn't last forever, and when the time came, they were committed without fuss to the stove as fuel. Since the raw materials going into these umbrellas were domestically produced bamboo and paper - in other words, fast-growing plant resources, the CO<sub>2</sub> produced by burning an umbrella would be countered by CO<sub>2</sub> assimilated by plants as a result of photosynthesis, and could thus be assumed to return the next year as new bamboo and paper mulberry growth.

Such a concept will no doubt strike the free-wheeling people of the present day as being the ultimate in parsimony, but this is exactly what living just on solar energy is about.

Even if you were to recycle and re-use the metal and plastic in today's umbrellas, it might actually be hard to justify such effort as genuine recycling. Sure, if you were to collect a whole bunch of umbrellas, break them down into their components, and create a pile of metal to be recycled as scrap, and plastic as fuel, you might appear to be reducing waste, but to arrive at this point, you may well end up expending more energy than you save.

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