

RESTORATION WORKS INC

## RARE WOOD / RARE RESOURCE

Just Being Thrown Away

by Gail Wallace

Do you remember the delight you have when you see beautiful wood items? The deep warm colors, the rich swirls of grain patterns, that solid wood look milled into some interesting shape to look at. Well, those rich looking wood items are becoming very rare. The beautiful original forest wood items we used to see are going, going, gone. They are being thrown away - windows, doors, casings, base boards, chair rails, picture rails, furniture, you name it, we discard it, because it's old.

Our dwindling supply of original forest wood products doesn't seem to concern very many people. It should. You can no longer buy original forest wood. It's gone from the market. You can no longer make any new items out of America's original forest wood, because you can't buy this wood, except for the little reclaimed lumber there is. You haven't been able to for the last 40 years. The little acreage we have left of this type of wood in places like our National Parks, and State Parks is protected. The UN Forest Resource Assessment of 2005 indicates that roughly 25.7 of the US original forest cover remains as "primary forest". Most Eastern and Midwest states have very little to speak of, less than 2% of what was once there. There are higher percentages of original forest wood left out west in places like California, the Northwest, and Alaska, but it is all protected, and the wood is not for sale.

America was once covered in original, or virgin, forests. When the Pilgrims arrived they found a timber paradise. America was built by cutting down those forests. We made our cities, towns, villages, and farm land out of those virgin forests and built our great nation. These forests could be likened to the much talked about remaining rain forests in other countries that we are advocating be saved, so we can all breathe clean air. Forests are the lungs of the earth. We now know how important it is to keep what we have, and that we need to plant more trees and sustain them, if we want to keep breathing. America's extravagance could be equated to the needs and wishes of some Brazilian or African people who want to use up their forests so that they can have a better life. It's a big problem to solve - balancing immediate economic needs with sustainable practices, trying to correct our past intensive use of a natural resource, and addressing climate change. We do plant tree

farms for our wood supply, but this wood is basically sapwood that doesn't hold up. It grows quickly and it also rots quickly.

The forgotten and unrecognized horror in all of this is the fact that products made from all of America's now long gone original wood forests are daily thrown away in our landfills. This wood is 200 to 500 years old or more and is vastly superior to our present day wood that comes from tree farms. This superior wood is not recognized as such, however. It is thrown away as if there were no tomorrow, could easily be replaced with something better, and is of no particular worth.

This throwing away and waste of superior products has been going on for a long time. It is estimated, for example, that there is only 30% of original forest wood windows left. Most windows in America were made out of original forest wood for decades, up until the 40's and 50's, except for a small percentage of earlier steel windows. About 70% of them have all been thrown in our landfills, replaced with vinyl, aluminum, wood composite, or modern day wood windows, manufactured from fast growth trees, grown on tree farms. This holds true for doors, tables, chairs, and other wood objects. They are being replaced with plastic, aluminum, and composite wood products.

So what is so good about original forest wood? Why is it superior? Why should we save it? Original forest wood is slow growth wood, typically 200- 500 years old, full of tight growth rings which form the heartwood of a tree. This slow growth also means that the cellular structure is tight and dense and full of natural resins. Heartwood is amazingly durable and can last hundreds of years if maintained, as experienced in many European buildings. It does not easily rot. Heartwood is what our windows, doors, wood trims, tables and chairs, etc. were made of up until about the late 40's.

The same size piece of wood, a 12" by 12" by 1" thick original forest pine wood slab, weighs about 1/3 more than the same size slab of modern day fast growth pine wood because of the dense cellular structure of original forest wood. Fast growth farm trees have very little heart- wood, a few spaced out growth rings, and little resin to speak of. They are cut down before the heart wood or any of this can form. Modern day wood is basically sapwood, which is the wood that surrounds heartwood in slow growth trees. Modern day wood is treated with wood preservative to help extend the life of the wood, but it is simply not a stable wood, and can rot fairly quickly even with a wood preservative which gives it about 3 more years of life before it dissipates.

Advertising tells us to throw away the old and buy new products. And that is what we have been doing. America has been in this mode for so long that it is hard to think otherwise. New is better, new is good; old is lacking, old is inferior. The preservation and restoration focused people are the only ones who try to save original fabric of any kind, especially wood objects as part of our heritage, and even that can be difficult. The cry for window replacement is loud, and thousands of windows on historic designated buildings are replaced with aluminum on a regular basis because you don't have to think about it and it is easier.

But the Green movement has brought new awareness and new realizations to many Americans. Reduce, Reuse, Recycle, and Restore has entered the picture. We have many pockets of change occurring to try and end the waste and be more sustainable. Saving any natural resource like wood is important, yet we have failed to bring the carelessness regarding original forest wood products to everyone's attention, and missed one of the most important things to save. You would never throw away a Tiffany Lamp or a piece of antique furniture, because they are rare and beautifully made. Any object made from original forest wood is now rare and getting more rare. By 2020, I suspect we will have 5% to 10% of original forest wood windows left if we are lucky.

Saving original forest wood products is not only sustainable and fulfills the Reduce, Reuse, and Recycle Green mantra, but it is a smart, mercenary thing to do. Material of superior quality and beauty that is going to become scarcer will begin to bring a higher price for those who want it and can't get it. You can't go buy this quality and beauty in new objects because it isn't available. You can only get it in old objects, where it may be hidden beneath years of use and abuse. However, once the old object is restored, its beauty, quality, and functionality return to be something beyond expectations. Most people do not realize that restoration techniques and technology even exist, and how advanced they are, and how good a restored product can look. Restoration can transform a dull looking original forest object into a thing of breath-taking beauty.

Restoration Works Inc. does that on a daily basis. People can't believe how good it (the chair, the window, the door, etc.) looks. We have been told over and over again that we make miracles. Restoration Works Inc. Is a company set up to properly, safely, and authentically bring back the beauty and functionality of original forest wood objects, as well as other material worth keeping. "We are America's first true restoration facility," says Gail Wallace, Company President," whose sole business purpose is restoring things." Restoration Works Inc. was initially set up to restore historic windows, doors, trims, and architectural features made using original forest wood, which it still does and is the bulk of the business. Many of its projects are on

the National Register of Historic Places and are very high profile. Restoration of other wood and steel objects are also now ongoing, and part of the daily business, even furniture from China if a client wants it done. This restoration facility was never a side line business to window replacement activities or a milling establishment as many are, but was set up to save as much original forest wood as possible, and focus on the art and science of wood and steel restoration. Restoring any wood or metal object of any age, to service the Green movement was added about 10 years ago. Whatever people want saved we will restore it. All restoration techniques, products, practices, etc. have been studied, incorporated, and adapted for compatibility, longevity, beauty, and authenticity.

America needs restoration facilities, not only to restore original forest wood objects, historic objects, or vintage objects, but to repair and refinish any worthy existing object people might want restored as well. With the Green movement bringing new awareness to recycling, Restoration Works Inc. has been right there, already doing recycling. Gail Wallace, the company president says, "We were Green since the day we opened our doors back in 1981. We have been saving windows and other objects since then. We not only save objects, but restore those objects using Green methods and practices. We have incorporated many Green practices, but our crowning achievement is our Green non-chemical stripping station. With our Green sensibility, we have moved on to restore all kinds of objects. Our thorough restoration processes and procedures for window and door restoration have allowed us to bring restoration and refinishing of all materials to new heights, for such objects as columns, wainscoting, tables, chairs, metal and art objects. We not only restore and beautify, but provide structural integrity to the material as well."

Wood in general, as a natural resource, is diminishing, never mind original forest wood. Our population explosion has, and will continue, to cause shortages of many of our natural resources. Restoring, repairing, and refinishing objects of any kind, but especially original forest wood objects is crucial, along with other sustainable practices, if we ever want to conquer climate change. Excessive and unnecessary manufacturing has got to stop as we attempt to become Greener. Restoration Works Inc. was set up to try and save wood on larger scale restoration projects. We have restored thousands of windows for schools, hotels, commercial buildings, and universities. But this is a drop in the bucket, so to speak. A lot more needs to be done.

Main stream America continues to throw away thousands of wood and steel objects. Window and door replacement is rampant. As a common practice, hotel furniture is thrown away every six years so that there can be a fresh look. Never mind the waste this produces. School furniture, hospital furniture, restaurant

furniture, and office furniture are thrown away because they are scratched or unstable, when they could be renewed, repaired, and refinished, not discarded. No one has thought about saving them. No one knows that there is an alternative or that they could do something different rather than discard that furniture or window to have that fresh look.

Restoration Works Inc. is a restoration facility, a place where restoration, renewal, repair, energy savings upgrades, and refinishing can all take place on a grander scale. Our 30,000 sq. ft. restoration facility is totally set up and devoted to not only the restoration of historic material made from original forest wood, but any existing products worth saving. This is a place where as few as 10 or up to 1000 windows can be restored for any project. A place where 200 hotel desks can be restored, or 300 restaurant chairs, or 50 library tables. There are stations for receiving and analyzing, for Green stripping, squaring & pinning, gluing and clamping, wood & metal epoxy restoration, incidental milling of missing parts, sanding, glazing, and for new finishes. There is also a station for final inspection and quality control.

This new concept of a restoration facility, a place for renewal and restoration, a place for saving our heritage, a place where the Green movement's motto of Reduce, Reuse, and Recycle can actually happen, is necessary and is a concept whose time has come. We know that wood as a natural resource is in crisis, and the good original forest wood we are throwing away has got to be saved before it is all gone. We NEED to save what little is left, and Restoration Works Inc. is on a mission to try and save as much of it as possible. Serious restoration of our Wood Products should be part of the Green movement along with all our other efforts in Renewable Energy, Building Green Structures, Reducing Carbon, and Applying Energy Efficient Retrofit Materials. We have to rethink what we are doing and stop being a throw away society. We have got to realize that our natural resources are dwindling or are gone, as in the case of original forest wood. We have got to help save the planet by Reducing, Reusing, Recycling, Repairing, and Restoring. Restoration Works Inc. is a place where that can happen.

Gail Wallace, President  
Restoration Works Inc.