

# Dr. Ed Gilman on Semi-Retirement, the Research Trail He Leaves Behind, and the Nexus of Urban Forestry and Arboriculture

by Michelle Sutton, City Trees Editor  
Photos Courtesy Ed Gilman

Dr. Ed Gilman is a popular presenter among city foresters and arborists of all specialties. His talks and workshops are based on his decades of applied research at the University of Florida (UFL) and countless field observations and conversations with arborists. Gilman retired from UFL in July, 2016 but he is going to continue doing education in the field, especially with commercial arborists around proper pruning techniques. The resources he created on UFL's website for pruning and all things related to trees and other landscape plants are phenomenal—more about those later.

## How is the transition to semi-retirement going?

**Ed Gilman:** Retirement allowed me to step back and take a break from writing; after 120 scientific publications and 35 years of tearing trees apart, I felt it was someone else's turn. I'll have more time now to do education in the field with commercial arborists—sharing the practical fruits of my research and that of my colleagues, which I really enjoy. I stay involved with ISA Florida and with the ANSI Pruning Standards committee. It's nice to remain plugged in and relevant. What would be particularly gratifying is if I could get more people doing what I'm doing in terms of the education of commercial arborists. Stay tuned for more on that.

I have more time now to do woodworking and leaded glass design in my 20x24-foot shop in my garage. We moved into a Frank Lloyd Wright-inspired home that was designed by one of his students. It's a small, low-ceiling home with a flat roof that has 74 windows that I've covered in leaded glass. I got inspired to do the glass work after seeing an exhibit about FLW at MOMA. Right now I'm working on a FLW-inspired Japanese door for my wife for our laundry room.

This is a new home and neighborhood for us, on the St. John's River in Jacksonville. We always wanted to live on the water; I enjoy speed and got a boat. Getting to know my new neighbors has been fun, and I give them advice about pruning their trees for hurricane resistance. The five trees I had on our previous property all stood up through a hurricane last fall. [Gilman has done extensive research on how pruning can reduce wind damage].

## What research do you hope your colleagues pursue?

**EG:** We still don't know the best way to prune a branch off a tree when there's no collar to guide you, which is most of the time. That's not as important as continuing to teach people



Ed and Betsy Gilman, married 37 years, overlooking the Brooklyn Bridge on a visit to NYC.

where to make pruning cuts in the crown, but certainly *how* you make the cuts is important. Arborists have different ways of approaching it, but there's very little research on pruning when there's no collar.

We also need to continue to learn more about how trees react in storms in the wind and ice and snow—how they break and why they break. Most everybody understands codominant stems and bark inclusions but I think we need to explore the other reasons trees break, like when a tree has lots of upright stems or really long branches. How long a branch is too long? Ten arborists will have ten different opinions on how to calibrate that.

In terms of roots systems, we and others have discovered that straight roots that grow right at the surface

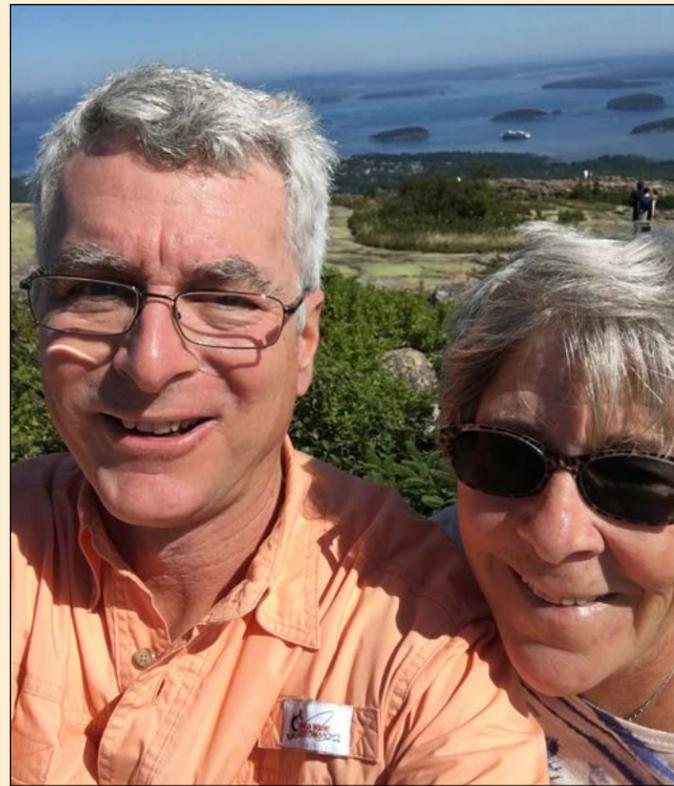
(right) Gilman's working on a FLW-inspired Japanese door for the laundry room.



give you the strongest and most stable tree. But I got a great question from an arborist at a recent conference: “What about when you have to plant in a strip or cut-out in the sidewalk where you don’t want the pavement disturbed or raised? That reality and the desire to have straight roots at the surface are in conflict.” *That’s* the conundrum to work on.

We also need studies on the economic consequences of pruning practices. When we’re running specs for contractors, what specs should we include for the long term, to save money? How can we use our pruning dollars most efficiently? A lot of us can go up to a tree and prune it to improve its architecture, but there’s no real dollar value assigned to that. In that same vein—and this would take 10 or 15 years to get a handle on—we should measure waste and lost carbon. One hypothesis I’d love to test is, does keeping low branches in check so that eventually you remove them when they’re still small—does that strategy result in more carbon stored in the tree?

What we’re doing now is waiting too long to apply the first pruning. As a result, contractors have two options: they can make big pruning cuts to remove the low branches, leaving big wounds—or, they can prune out secondary branches and leave big branches—and then your branch structure’s not



The Gilmans on Cadillac Mountain in Acadia National Park



The Gilmans’ Frank Lloyd Wright-inspired house on the St. John’s River in Jacksonville



One of Gilman’s recent woodworking projects.



The long-awaited boat

so good. We need long-term studies on this tradeoff. The foresters figured out a long time ago that tradeoff as far as pruning low branches to maximize lumber quality as the end product. We need to do the same research—but with canopy as our end product. How can we get the most canopy, sooner? Pruning has a big role to play there.

talking with growers, who for the most part aren’t involved enough in arboriculture; we need them to understand root systems. I’d recommend that both arborists and urban foresters are interacting with and improving their relationship with the growers.

**What’s one piece of advice that emerged from your research that you find yourself most frequently giving arborists?**

**EG:** When contractors or your own crew are raising the crowns for clearance, also specify three to five reduction cuts on the biggest branches. What that does is provide structural pruning at the same time as the crown raising. That keeps all the branches that are going to come off in the future small so that when they are removed in the next round, the wounds are small.

**What thoughts do you have about the state of urban forestry today?**

**EG:** When I got into the arboriculture industry in the mid-1970s, the urban forestry field as we know it today was just getting started. I attended the first urban forestry conference, put on by the USFS, and it was really fun to see urban forestry start to come together as a profession. At that time, everybody did everything—arboriculture and urban forestry was one big conglomeration of people.

The two diverged a lot in the last 35 years. We’ve learned a lot more about each field and we understand the difference between the two better, but I sense we are more separate now than we should be; we have to continue to make sure we talk to each other. If urban forestry goes too much in the direction of social or budgetary or economic benefit concerns and there’s not enough arboriculture, it’s not good for either field. And then we all have to be

**What resources on your website do you want people to know about?**

**EG:** On the [UFL Landscape Plants website](#) you’ll see free [Tree Planting and Preservation specs](#) that were done in coordination with the Urban Tree Foundation’s Brian Kempf, landscape architect Jim Urban, and twenty of our colleagues. Urban foresters, designers, and landscape architects can download the full CAD files to access 76 peer-reviewed planting details. They can bring those details into CAD and then edit and change numbers as befits their project; this has never been done before and is a very powerful tool. Part of the review process involved the ISA reaching out to DOTs in various states to review and help us reach a consensus set of specs and details. The details incorporate new research; for instance, based on our latest findings, there’s a detail on how to shave the root ball of a container at planting. With these details and specs at the ready, landscape architects don’t have to face spending unbillable time developing their own detail on CAD (historically they often wouldn’t). As a result, more detailed information is getting out to contractors.

The other free resource I’d want to highlight is that I put my [50 PowerPoint presentations](#) that made up my college-level online arboriculture course on the website; the course covers all facets of arboriculture except pests and diseases. There are PowerPoints in English and Spanish. There are also [51 videos](#) of me teaching the course, over 1000 minutes of instruction. 🌿