

PYRUS AND THE GUITAR INDUSTRY

Table of Insights

01	Client & product background
02	Introduction of the project
03	Who did Matt talk to?
04	Does the guitar industry care about sustainability?
05	Do end consumers care about sustainability?
06	Consumer demographics
07	Experiences using alternative materials
08	Decisions are made from the top

09	Concerns over guitar-industry-fit
10	Different strategies to get Pyrus buy-in
11	Experiences sourcing alternative woods
12	Musicians are finicky traditionalists!
13	Does regular wood really matter with guitar performance?
14	Challenges using alternative materials to date
15	Concluding thoughts on Pyrus & other product ideas to target via our research partners

CLIENT



Gabe Tavas



Symmetry



Tim Keating

Gabe Tavis and Tim Keating are co founders of [Symmetry](#) A company dedicated to innovations at the forefront of environmental responsibility and sustainability.



PRODUCT

PYRUS

Their first flagship product is called Pyrus. It's a sustainable alternative wood material made from bacterial cellulose via the waste of kombucha brewing.

They are in the early stages of this material, but signed a contract with a large kombucha manufacturer, been featured in the [{World Economic Forum}](#), won the [{James Dyson Award}](#) and have a modest team of passionate environmentalists and engineers.

Introduction

Pyrus is ready for production, but Gabe & Tim need to find the right target market. Gabe & Tim brought me on to determine if the guitar market is the right choice for Symmetry's initial go-to-market strategy.

They wanted to learn the following:

- Does the guitar industry care about sustainability?
- Do end-consumers care about sustainability?
- What are the difficulties of traditionally procured wood?
- Have guitar companies tried alternative wood materials before?
- What are their thoughts on alternative materials in general?

So I set out on a mission to learn from representatives of large guitar manufacturing companies!



Who I interviewed



Mitchell Nollman

Vice President Sales and
Customer Engagement at C.F.
Martin & Co



Scott Paul

Director, Natural Resource
Sustainability at Taylor Guitars



Blake Wyland

Host of The Tone Mob Podcast,
the longest running interview
style guitar podcast in the world.



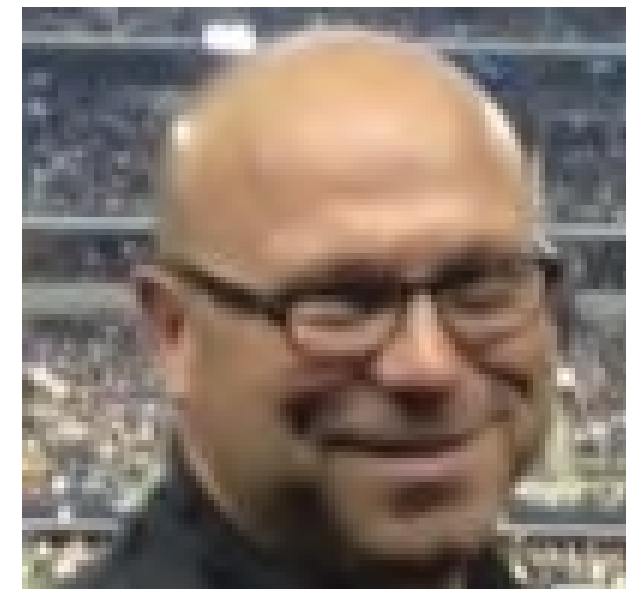
Dan MacPherson

Owner/Luthier - MacPherson
Woodcrafts, MacPherson Guitars



Michael Dickinson

Exotic and Sustainable Wood
Buyer at C.F. Martin & Co



Gene Wilson (BONUS)

Vice President of Merchandising
& Vendor Management at Room
& Board

Does the guitar industry care about sustainability?

01

Sustainability is a concern, but it's a challenge.

Everyone Matt spoke with says sustainability is a concern within their companies, and they're all open to buying alternative materials. However, most materials to date have been an uphill battle to implement.

02

They care how forests are being managed

When it comes to procuring wood, every interviewee we spoke with cares about how the forest is being managed, and the practices that are being followed in those forests.

03

Alternative innovation is encouraged

Guitar companies definitely encourage inventors to keep trying with alternative wood materials, they want to see someone succeed in creating something new that performs better and isn't significantly more expensive.

Guitar companies on sustainability

“

Martin is trying to be green. It's very challenging journey, but I think we're at a tipping point in the guitar industry.

Michael Dickinson, Sustainable and Exotic
Wood Buyer at Martin.

“

Many manufacturers are investing heavily into sustainability related issues from efficiency, to energy consumption, to fewer use of plastics, etc

Scott Paul, Director, Natural Resource
Sustainability at Taylor Guitars

“

“With companies, we're all worried about the environment. Well, not everybody, but we are we. Sustainability is a core part of who we are as a business.”

Mitchell Nollman Vice President Sales and
Customer Engagement at Martin

“

From an environmental perspective, most people in this business have a concern. Maybe not the big factories, but the smaller guys like me, I think we're all fairly concerned.

Dan MacPherson Owner/Luthier – MacPherson Woodcrafts,
MacPherson Guitars

“

There's a level of acceptance inspiring other inventors to innovate. A lot of manufacturers are investing heavily into sustainability issues across the board.”

Blake Wyland, host of Tone Mob

Do end consumers care about sustainability?

01

Maybe not...

3/5 of our guitar representatives said that, as far as they know, sustainability does not cross consumers' minds that much. They agree guitar players are not terribly concerned about sustainability. It is people within the guitar industry who really care.

02

Buying patterns are not matching vocal concern

Many said end consumers may claim they will pay more because the material is sustainable, but they haven't seen that action follow through.

What about end consumers?

//

It's interesting that as much as people talk about the environment being important, less people are willing to act on it.

[Mitchell Nollman Vice President Sales and Customer Engagement at Martin](#)

//

Guitar players, I would say, on the whole aren't terribly concerned about sustainability. It's not the number one thing on their mind.

[Blake Wyland, host of Tone Mob](#)

//

Most end users, I think, aren't really aware of all the rules and regulations and restrictions of movement, etc. I don't think on the whole, it really crosses people's minds. Some people do mention it. But again, I don't think it's that much of a concern for them.

[Dan MacPherson Owner/Luthier - MacPherson Woodcrafts, MacPherson Guitars](#)

Consumer demographics

Consumers who care about sustainability are younger.
The guitar industry in general has a consumer base dominated by men.

Consumer demographics



The consumer demographics who talk and care about sustainability tend to be younger.

[Mitchell Nollman Vice President Sales and Customer Engagement at Martin](#)



The demographics that care tend to be younger and more left leaning. Millennials and GenZ are trying new stuff. Overall, the guitar industry tends to be predominantly men.

[Blake Wyland, host of Tone Mob](#)



There is an increasing expectation from the 20 year old generation and younger that they have the right to know the environmental footprint of the products they're buying.

[Scott Paul, Director, Natural Resource Sustainability at Taylor Guitars](#)

Experiences using alternative materials.

Alternative materials & alternative woods have been experimented with by everyone Matt talked to. There is an interest and effort that goes into trying alternative materials from most companies.

Experiences using alternative materials (Richlite)

Richlite was mentioned frequently by the majority those we spoke with who have all had generally positive things to say about it.

1. "Richlite works exceptionally well and has been used in Martin for nearly 20 years. From a guitar player's perspective, though, it may take some time to get accustomed to." – [Michael Dickinson, Exotic and Sustainable Wood buyer at Martin](#).
2. "Our CEO loves Richlite. Some of the dealers complain they wish it was real wood. It's hard when you're competing with some alternative material and somebody says "That's plastic! We use real wood." I buys a lot of high pressure laminate and rich light. And it's not necessarily cheaper. And I puts it on a lot of instruments." – [Mitchell Nollman Vice President Sales and Customer Engagement at Martin](#)
3. "I personally really likes Richlite first fret boards, the one I played felt really good. But when they first came out, the attitude amongst some guitarists (especially older Gibson folks) were, oh, that's just a bunch of garbage." – [Blake from Tone Mob](#)

Experiences using alternative materials (Bamboo)

Bamboo seems to be have been a peculiar failure at Martin

1. "We've tried a bunch of alternatives, bamboo In particular did not work." – Michael Dickinson, Exotic and Sustainable Wood buyer at Martin.
2. "I'm not sure there will ever be a bamboo guitar." – Mitchell Nollman Vice President Sales and Customer Engagement at Martin

Experiences using alternative materials

HDPE, Rice, Sunflower, Wheat.

Gene Wilson, VP of Merchandising & Vendor Management at Room & Board has experimented with various alternative materials with their furniture at Room and Board:

- "We've got some outdoor product lines with recycled HDPE panels. It's plastic, but it's mimicking traditional wood. It's a perfect outdoor product. For the purposes we're using it for, it's superior to wood. It'll never wear, it'll never fade and color the board. The boards will never rot. HDPE actually is a good example where the material costs a lot more than wood, but the advantages you get are far superior. So it made sense for us to pursue that."
- "We've looked at material made of sunflower seed husks, or rice husks. But we have not had success with those things as of yet. We've run into roadblocks each time. It depends on what the material is. But I definitely think it's possible."
- "In the case of the sunflower and wheat boards, Those ended up being a much higher price than the traditional wood and they didn't perform as well. They didn't have the same characteristics that we would expect. They ultimately didn't prove to be a good alternative to the wood products that we're using."
- "In the case of the rice board, it's a newer company and the color of the materials is a little odd. We'd have to paint it, and they were a little slow getting started. So they weren't really ready when we were ready."

The decisions are made from the top

The motivation and influence to act on sustainability comes from the owners or most senior teams of the company.

"Ultimately, if you don't have the authentic buy-in of the senior management team or president or founder it's very hard."

– Scott Paul, Director, Natural Resource Sustainability at Taylor Guitars

Many people voiced a consistent concern:
is the guitar industry really the right initial
market to go after?

Concerns on guitars as the first main industry (1/2)



I think too often people in the alternative materials space get attracted by the shiny bright lights of the guitar and music industry.

I would look at other things made out of wood. Also, plastics are the issue of the next generation. People are really waking up to “holy crap, we've made a lot of plastics, and it's just choking bays and rivers and canals and like it's becoming a huge thing”

I've seen guitars that were made with 100% synthetic materials. And they were pretty damn good. You know, they're legit, they're great. But there's probably 1000 other uses with higher tolerances in their specifications.

[Scott Paul, Director, Natural Resource Sustainability at Taylor Guitars](#)

Concerns on guitars as the first main industry (2/2)



It wouldn't be ideal for someone to invest a significant amount of money in tools and machinery, hoping to make it big in the music industry. Musicians are worth a whole bunch, we don't always like everything.

Instead of just looking at it as a replacement for guitar woods you need to look as an alternative to wood in general.”

[Michael Dickinson, Sustainable and Exotic Wood Buyer at Martin.](#)



The ideal approach for a material like this would be to target a less traditional market.

[Blake Wyland, host of Tone Mob](#)

Different strategies for Pyrus to get buy-in

Promote a good story behind Pyrus

If there's a good story behind the product, that would definitely help in getting people to adopt it. If you can use the story to get a company like Martin to adopt the product, then that will set the stage for other companies to jump in.

[Mitchell Nollman Vice President Sales and Customer Engagement at Martin](#)

It would be nice, especially if you've got a cool backstory with it. Because everyone's looking for an angle to differentiate their product from others.

[Scott Paul Director, Natural Resource Sustainability at Taylor Guitars](#)

Prove the material with another use-case first

"After proving the material with some other use-case, then guitar makers would be would be like, "Oh, what the fuck is going on over here?!" Then suddenly you're making some money, you got a real company. And then maybe you attract the attention of somebody who would maybe meet you more than halfway."

Scott Paul

Emphasize ease of access from a builder's perspective

“For this type of product, emphasizing sustainability and ease of access from a builder's perspective would be crucial. If it's readily available and performs exceptionally well, particularly as a fretboard material, builders will be interested.”

[Blake from tone mob](#)

Different methods of alternative wood sourcing have been explored.

Urban wood was a huge consistency among everyone:

PROS: Urban woods clean up the environment and supply wood without having to cut down trees! Everyone we spoke with has used urban woods through things like rescue logging from underwater, old bridges, railroad trestles, and even LA street trees.

CONS: Urban woods are more likely to have foreign objects in them. E.g nails, screws or bullets that ruin sawmill equipment. They also may not pass certain quality tests related to the all the finicky qualities that are so particular to the guitar industry.

COST FACTOR: "There's a few things the traditional manufacturers would be leery of. One would be the price of the material itself. Urban Wood generally is a little higher price. And I think that's primarily because the supply chain is not yet efficient."

– Gene Wilson, Vice President of Merchandising & Vendor Management at Room & Board

More on Urban Wood



We obviously are doing a lot of work with Urban Wood, trying to remove wood from the waste stream, create the demand, but also help create the supply chain that can allow that material to be captured, processed efficiently, and priced at a level that can compete.

Gene Wilson, Vice President of Merchandising & Vendor Management at Room & Board



We're using Urban woods. There's several species that were sourcing from former Los Angeles County street trees.

Scott Paul, Director, Natural Resource Sustainability at Taylor Guitars



We try to find logs that have been floating around in rivers, old bridges etc that had another life that they can repurpose, or sinker mahogany. Stuff that dried up and was 100 years old.

Mitchell Nollman Vice President Sales and Customer Engagement at Martin



They have several companies doing rescue logging. Finding logs from underwater old barges and old railroad trestles. Cleaning up the environment while finding alternative woods.

Michael Dickinson Exotic and Sustainable Wood Buyer at C.F. Martin & Co

Selective cutting

"There are selective cutting operations where they let the trees regrow so as to not harm the local environment or ecosystems. Having a skilled forester who can plant new trees to ensure the growth of the next generation of trees is crucial."

– [Michael Dickinson Exotic and Sustainable Wood Buyer at C.F. Martin & Co](#)

Musicians are often finicky traditionalists in the guitar industry. Guitars are very intimate products, and regular woods carry an almost sacred reputation..

Traditionalist mindset roadblocks

//

There is a sentiment that musicians are very picky about the materials of guitars and hold the authentic wood to be an intimate part of that.

[Michael Dickinson, Sustainable and Exotic Wood Buyer at Martin.](#)

//

There is a historical bias with craftsmen. These are people who were in woodshop in junior high, and they're still in woodshop. And now they're 50 years old. A guitar is a ridiculously intimate product.

[Dan MacPherson Owner/Luthier - MacPherson Woodcrafts,
MacPherson Guitars](#)

//

Instrument makers also come from a craftsman background who always have a far more profound appreciation of the resources that they're working with.

[Scott Paul, Director, Natural Resource Sustainability at Taylor Guitars](#)

//

The problem with guitarists is that we're also very, very much traditionalists. "Oh, I want the 1960 Strike Castor that's made with the exact same stuff that was made in 1960" So change can be really difficult.

[Blake Wyland, host of Tone Mob](#)

However, there is some ambiguity if authentic wood biases matter that much in the performance of guitars

Does authentic wood matter as much as traditionalists think?



Consumers are steeped in the myths and legends of certain types of woods, believing it produces certain types of tonal qualities. Which is largely nonsense. They want Brazilian mahogany. They want Quilted Maple. They want Indian Rosewood, etc etc because that's what they think they need to be the best it can be.

I've made guitars out of woods that a lot of people would never have heard of. And if you didn't tell them what it was, they wouldn't know the difference. There's a lot of myths and legends and BS in this industry, like any other.

That's why people still buy Gibson's and still buy Fenders. Instead, they're buying the brand name. Really the quality or what the instrument is made of is really kind of irrelevant but they're buying into the brand.

[Dan MacPherson Owner/Luthier - MacPherson Woodcrafts, MacPherson Guitars](#)



Different woods have distinct sounds, to some extent. It's an ongoing debate in the industry about whether it truly matters. Personally, I have a guitar made of plexiglass that I find sounds and plays great.

[Blake Wyland, host of Tone Mob](#)

Regulations are a headache with procuring wood

- There are hefty amounts of paperwork permits, making sure everything is legal and aboveboard is generally a headache.
- FCS certifications were mentioned multiple times as a fiction-full process and something annoying to stay on top of.
- The United States is difficult for spruce, the spruce trees need to be like 300 years old.
- Spruce and old growth mahogany are becoming rare. Brazilian Rosewood is not readily available as much.
- Dan was the only person to explicitly address illegal activity and corruption in places like Brazil in the Congo. Others mentioned it, but it was inadvertent or indirect.

There's some valid reason for a bias towards procuring regular wood from a manufacturing standpoint.

- "Wood itself is going to last forever. So if you create a quality product, the tree that's been taken down and turned into furniture should live a very long life. So doing all that we can to create long lasting products so that end of life costs are minimized."
- "The manufacturers that we work with are used to buying graded lumber so they know exactly what they're getting. They know it's going to meet the quality standards that they have they need for success, they know that the yield of the material will be good enough to promote strong efficiency for them to, to create a product with the lowest price possible."
- "Traditional supply chain is very efficient and they sort their material."

– Gene Wilson, Vice President of Merchandising & Vendor Management at Room & Board

Challeneges using alternatives to date

As mentioned before, there have been various up-hill battles trying to implement and adopt alternative materials within the guitar industry. In the following section, we're going to lay out all the different kind of issues that our representatives mentioned during our interviews.

Cost is a **huge challenge** with manufactures and consumers

//

Ironically, the cost of those products like Rocklite with their Ebony and Rosewood substitutes were more expensive than the real thing. And that's what puts a lot of people off. I think the whole ethos around being environmentally concerned starts to wane when the cost factor comes in. People will always choose the cheaper materials.

Dan MacPherson Owner/Luthier - MacPherson Woodcrafts,
MacPherson Guitars

//

Cost to performance is a significant factor... If it's equal or better but 10 times as much for the material, people probably wouldn't buy it. Will there be some people willing to spend the money? Sure. But it's not a lot.

Mitchell Nollman Vice President Sales and Customer
Engagement at Martin

//

It doesn't always have to be a low price if it performs well. But if you're going to charge me more, you better give me something above and beyond.

Gene Wilson, Vice President of Merchandising & Vendor
Management at Room & Board:

Price doesn't always mean that a material won't be adopted, but many of the interviews voiced the exact same point: If the material is more expensive, then it better be equal to or better than regular wood in performance, manufacturability, and whatever use-case it's being applied to.

Scalability is a challenge

"The other issue is going to be the scale at which you can manufacture because if you can't provide us, any of the big companies, the scale predictability frequency that we need, like we're not even gonna go there.

If you can't compete on a price point, don't get me wrong, they'll pay a fair market value. But I'll bet you 100 bucks, especially since you guys haven't scaled up and you're not doing the volume that you will never compete at a price point, that other traditional wood manufacturers who sell us wood, you can't compete with them."

– Scott Paul, Director, Natural Resource Sustainability at Taylor Guitars

"You need to get to a certain scale, you need to have enough volume for people who invest and get it to where to be able to compete with those traditional supply chains."

– Gene Wilson, Vice President of Merchandising & Vendor Management at Room & Board

In some cases, the process of producing alternative materials is far more environmentally irresponsible than using wood.

There are certainly responsible non-wood materials, but a bunch of them, it's just like, dude, give me a fucking break with your marketing. It's basically some composite material that isn't known to nature.

There's a lot of people that come to us and say they've got some alternative material that appears to be super responsible from a manufacturing standpoint. But what people don't understand (unless they're a guitar builder or an instrument builder) is it's not just about the material. How does the material dry? How does it bend? How does it cut? How does it sand? A guitar is made up of five or six different species. Each species is meant to form a mechanical function.

– [Scott Paul, Director, Natural Resource Sustainability at Taylor Guitars](#)

****Pyrus may have to initially fight this presumption, but has a unique opportunity to market itself as a truly, authentically sustainable alternative. Which, after this research, seems to be extremely rare!**

With guitars, there are particular qualities, behaviors, and performance factors of wood that make things complicated...

1. Certain parts of the guitar have to be made at a specific wood due to the requirements of the company.
2. Is the instrument lighter?
3. Is it more manufacturable?
4. What's its density?
5. How does it sound? Does it mimic the sound of other specific woods?
6. Does it crumble? Suck out moisture? Dries out? Cracks?
7. What are the aesthetics? What does it look like? What is its color?
8. Does it have knots?
9. What is it in its natural state? Can it be sold in its natural state?
10. Will they have to paint it?
11. Will seasonal changes compromise the product?
12. How does it bend?
13. How does it cut?
14. How does it sand?

**Overall, everyone I revealed
Symmetry to thinks there is lots of
potential for Pyrus! They were full of
unsolicited ideas and suggestions
for different products to consider
designing for.**

Michael Dickinson Exotic and Sustainable Wood Buyer at Martin

- "I love this idea. Go forward. But think of the bigger picture. Don't get so focused on being in the guitar world, that you lose your product."
- "Just think of every little trinket that's made out of fake plastic! Make glasses out of it, make drinking cups out of it, make anything they make plastic out of... Thermoses or coffee cups."
- "If you can get it really compressed, intensive, strong, maybe you want to make guitar picks. You may have to make 10 million of them to break even, but it might be worth it."
- "During our green initiative, we looked up to a Kombucha manufacturing company as a role model. Their commitment to recycling and environmental sustainability inspired us. Interestingly, their website focused more on reforestation and recycling cans rather than promoting their own product. So you wouldn't know they used Kombucha on their website."
- "There's a glass company right now that's using cellulose and they make glasses out of it. If you're using a natural product, in place of a plastic, you're doing the world a load of good."

Scott Paul Director, Natural Resource Sustainability at Taylor Guitars

- "Depending if it's water resistant, my wife's really into gardening and she hates buying the plastic pot at Home Depot. Maybe it would feel better if it was some Eco material that was kind of like plastic and was biodegradable."
- "Dining room set, plates and glasses, outdoor patio furniture. Now Keating would love that because historically outdoor patio furniture consumed a lot of tropical timbers and it was pretty irresponsible for a long time how they did it."
- "Do you know how many fucking little boxes to put forks or napkins or towels or dorm rooms stuff are sold? Half of them are made out of plastics. And if you made a box, you know, small box, not too small, but a small box. That would be way easier to build than a part for a guitar that has to interface with five other parts that are made out of wood. I'd even go to someplace like Starbucks and just look at the little tchotchkes and little containers and stuff."
- "If you were making a product that you could sell for like \$30 In a box, you know, just some little box or some, you know, the individual blinds for curtains you know? You know, the little blind strips?"
- "As far as I know, Kombucha could work fucking better than our wildest dreams. But will it glue to spruce? I mean, it will. But now I got to use some different fucked up glue and I got to change what I'm doing and blah, blah, blah, blah."

Gene Wilson, Vice President of Merchandising & Vendor Management at Room & Board:

- "From that standpoint, if the material mimics exotic woods, it could be a great alternative. Somebody like us could sell something that looks like that. Because it's not coming from those areas, and we don't have to worry about the environmental impact. That would be a selling point, potentially."
- "With the smaller the piece, it's more likely you're going to use it for home decor items. We certainly do business with home decor items. We can make picture frames out of this, that would be very interesting."
- "Our volume is driven by furniture. Making tables, let's say a 36 inch by 72 inch table. If we had a 36 by 72 inch panel that was stable and thick, that we could sell as a tabletop. And it was durable, maybe didn't scratch, didn't react poorly to water and was environmentally friendly. Seems like it would be a huge advantage over wood."
- "I see a lot of work being done with very few results to date that provide an alternative to leather with organic material. Like the grape skins, as they make wine, and they're turning that into a leather alternative. I've seen people doing it with mushrooms. And none of these companies have brought it to the scale yet that would allow us to use it. But think about beef! The beef industry is not really the best thing for the planet. Beef consumption is falling. So ultimately the cattle availability will fall, leather is a major material that will probably decline in supply. For certain there's going to be many consumers in the market who no longer want to buy beef products, because of the impact on the environment or the impact on the Amazon as well. If that were a possibility, that could be a strong application for this."