Q16 2013

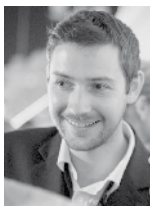
Superyacht

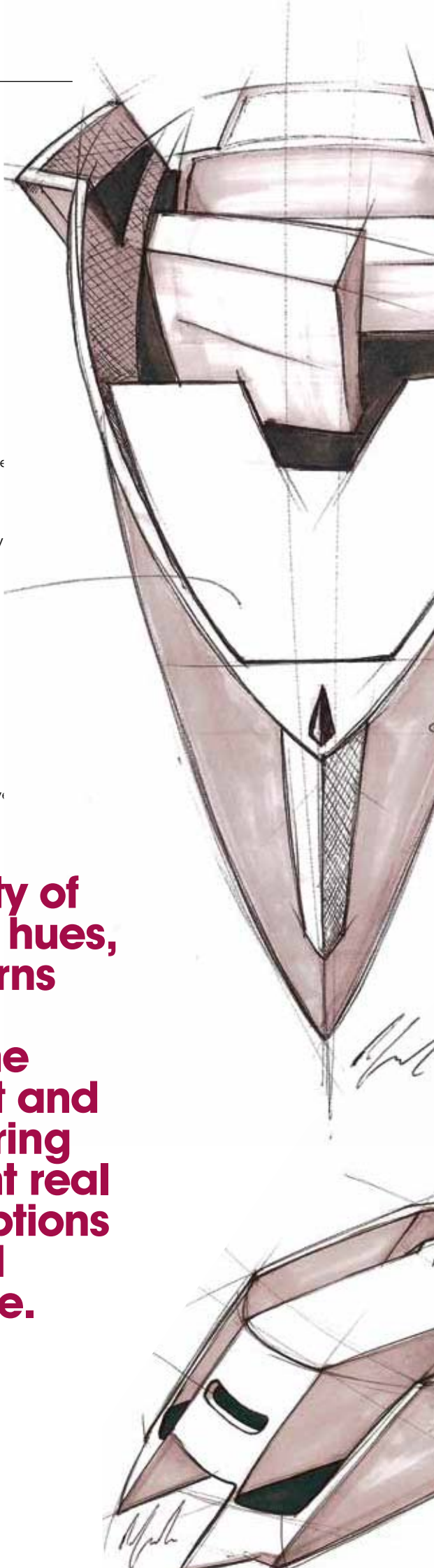
INTERIOR DESIGN EXTERIOR SPACE CREATIVITY AND ARCHITECTURE

DESIGN

GUEST SUITE

PETER SYMONDS BAMBOO





In the summer of 2012, the director and founder of Lamboo, Luke Schuette, approached Sigmund Yacht Design to design an advanced superyacht tender concept (the R1, published on superyachtdesign.com) to showcase the company's newly engineered wood. Although sceptical to begin with, principal designer and founder of the design studio Peter Symonds explains why the studio took the project on.

A radical new tender made from a new material using a previously unseen method of manufacture seemed like a risky project. The R1 project would involve us engineering a superyacht tender using a completely untried material: bamboo.

First, we had a lot to learn about bamboo. According to Lamboo there are 1,600 species of the plant, which we learned early on is a species of grass rather than a type of tree. At first, designing a Recreational Craft Director-compliant boat from a type of grass didn't seem realistic, but the more we learned from Lamboo, the more impressed we became. Lamboo had selected four species of bamboo for their strength, rigidity and hardness from sources around the world: Central and South America, China, Vietnam and India. We also learned that bamboo is the world's most renewable wood resource, and there is a species so hard that a nail can't be driven through it.

Lamboo's proprietary lamination processes (the company's name comes from the term "laminated bamboo") is completely new and the subject of a pending patent. The culm of bamboo is sliced into even slats and each one is cured individually to ensure that the finished product is watertight (this is also the process that gives Lamboo its antimicrobial properties and low-maintenance quality). The slats are then adhered with various types of adhesives and pressed into two different grain types.

But could we approach design and build in the same way as we would with traditional hardwoods and marine ply? We were shown a great deal of luxury architectural projects that had used Lamboo in various ways, whether structural or decorative. We became confident that Lamboo could deliver a reliable and tested material.

This new material not only acts like traditional exotic hardwood but also actually surpasses them in many ways such as high modulus of elasticity (165,474 BAR) and a high dimensional stability. It has impressive mechanical properties as well: high tensile strength (1,055 BAR), flexural strength (986 BAR), shear strength (55 BAR) and compression (644 BAR). These are winning characteristics when aiming to create a durable and long-lasting marine product such as the R1. Strength and durability are key to a superyacht tender—a workhorse for crew and owners alike. Lamboo has the properties to make it a truly viable alternative to dwindling hardwoods and even other materials. Maintenance is also kept to a minimum due to bamboo's durability: it has to be power washed every three years and refinished every 20 years. It therefore beats hardwood and makes life simpler and more cost-effective for the owner.

The vast variety of styles, natural hues, colours, patterns and textures afforded by the bamboo plant and its manufacturing process meant real choice and options for clients and designers alike.

Designing with Lamboo also provided us with another advantage that we had not appreciated until our samples case arrived.

The vast variety of styles, natural hues, colours, patterns and textures afforded by the bamboo plant and its manufacturing process means there are a number of options for clients and designers alike. The unfinished material has a look similar to that of teak, with a consistent grey appearance. Lamboo has developed 54 different stain colours ranging from natural pale beige to ebony, which was chosen for the R1 tender design. Not only does the customer have a wide range of natural colours to choose from but also the choice of three different grain types, vertical, horizontal and strand, which is denser at 673kg/m3.

The aesthetic range on offer to clients and designers is far greater than of any hardwood, and the technical ability of Lamboo and its statistical advantages make it a compelling material to work with. Tie into the equation its sustainability, and laminated bamboo is a truly viable option for many marine applications.

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