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USING CYPRESS WOOD TO CUSTOMIZE FURNITURE ITEMS FOR HOME INTERIORS IN KIGALI, RWANDA

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Introduction

This study sought to explore the role of using cypress wood for customizing furniture items for home interiors. Cypress wood is said to be a multi-use wood with interior and exterior design uses (Schrenk, 2012). Its natural oil is called "*cypressine*" resists rot and insects. This makes it one of the most durable woods when exposed to moisture conditions causing decomposition (Harris, 2012).

"Its rustic appeal with soft to heavy grain appearance and few knots makes it

popular choice for interior floors, wall, paneling, furniture, decorative accessories, millwork, cabinetry and door and window rails"(Harris, 2012).

Cypress can be applied to building construction, interior design, fit-out, civil structures and landscaping. Andrew states that its attractive color makes it an ideal choice for wood ornamentation constructions like cabinets, doors and railings (Hurford, 2011). A stable wood which makes it highly resistant to splitting and warping and it accepts paints and stains (Harris, 2012). It is suitable to be used in interiors because of its natural appearance of a unique color of honey maintained with clear sealer (Harris, 2012)

It displays a yellow tone, with reddish, chocolate or olive hues (Harris, 2012). Harris states that cypress has good depth of color and finishing qualities, when finished with amber oil, it looks bright (2012). Cypress delivers long lasting performance and timeless beauty (Harris, 2012).

Harris (2012) states that cypress is also called bald cypress, red cypress, yellow cypress, southern cypress, italian cypress. Cypress is a tree whose leaves are always green, and lasts seasonally like hardwoods (Howard, 2011). Although cypress is softwood, it grows alongside hardwoods and is grouped and manufactured with hardwoods (Hurford, 2011).

Cypress has unique water and weather resistant qualities that make the wood useful for make building, boats and other products that are used in water. These qualities make cypress a good choice wood for many applications (Joshua, 2011). For example, Noah "Ark which he built to save mankind and all the animals God had created. He tells him to use "Gopher Wood" which is commonly thought to be cypress (Joshua, 2011).

The cypress tree is tall and slender (Ginsburg, 2010). The trees can survive for up to a thousand years (Ginsburg, 2010).Ginsburg (2010) states that in Mesopotamia and ancient Greece, cypress trees were planted in gardens that surrounded temples. Cypress has historically been associated with both death and everlasting life (Ginsburg, 2010).

Ginsburg (2010) informs us that the name of cypress species tree is "sempervirens", which means everlasting. He explains that the trees oil was believed to ward off evil spirits (2010). Also Ginsburg (2010) says that the fragrant of its essential oil is antiseptic and astringent. It has long been used other in deodorants and deodorizing preparations (Ginsburg, 2010).

It is traditionally included in some massage oils because it creates a feeling of

warmth and comfort in interior (Ginsburg, 2010).Joshua (2011) asserts that cypress was used as a framing material. Framing with cypress is a nearly lost art, but may be rewarding both aesthetically as well as adding longevity to investment (Joshua, 2011) For siding, it is a great option to give a rustic appearance because it can be either stained or painted and will last much longer than other wood siding options (Joshua, 2011).

Joshuastates (2011) that for interiors as well, cypress makes great wall coverings and can add a beautiful, warm feel to any family room. Tomas tell us that cypress wood in interiors can be used for ceiling, flooring, paneling, molding, cabinets and in furniture making (2011).

Cypress in exteriors uses are Cypress Siding, Porches, Decks, and Railings, Outdoor Trim and Accessories, Cypress Outdoor Furniture and in Cypress Fencing (Joshua, 2011).Ginsburg (2010) clarifies that Italian cypress--another name for "Cupressussempervirens" was introduced into England at the end of the 14th century and at the middle of the 17th century, the trees were English widely used in ornamental landscaping.

Schrenk (2012) states that as deciduous conifers, cypress trees produce needles and cones that they shed in the winter, spreading their seeds. Schrenk says that cypress trees may regenerate from cut stumps and that conversion of wood into products such as structural beams, window frames, flooring, furniture, cabinetry and doors contributes to the long-term sequestration of carbon (2012).

Schrenk (2012) highlights that every part of cypress log is used as lumber or by product. Its finished products are re-useable, recyclable and biodegradable (Schrench, 2012).Cypress takes less energy to make products from wood than other materials, also making products from aluminum, glass, plastic, cement or brick can require as much as 126 times more energy than making them from wood (Schrenk, 2012).

Harris (2012) says that cypress is

lightweight and durable which makes it an ideal building material. Cypress tree produces some of the world's most prized wood (Harris, 2012). Howard (2011) informs us that the United States Forest Service ranks Cypress Wood Decking Installation "Taxodiumdistichum" among the top woods for exterior use. Harris (2012) highlights that cypress legendary hardiness with and durability. He explains that cypress performs well in both interior and exterior applications (2012). Cypress is easily machined (Harris, 2012).

Harris (2012) says that cypress roots love water. Cypress trees grow on wet sites (Harris, 2012). They develop what are called cypress "knees" or "*pneumatophores*" whose wood is grows knee high which gives it property of being soft and light and it can be used to makes vases and novelty items (Harris, 2012).

Donald (2009) asserts that even if cypress is known in interiors due to its durability and resistant to weather conditions. Donald tells us that when it lumbers is not well maintained exposed to moisture; it can suffer from defect which degrades lumber quality (2009). This defect is defined as any irregularity occurring in or on wood that may lower its strength, durability, or utility values (Donald, 2009). Donald(2009) mentions that manufacturing defects of cypress include blemishes which are produced in chipped manufacturing, such as grain, loosened grain, raised grain, torn grain, machine burn, and machine gouge.

In Rwanda, forest resources have decreased over time, due to rapid population growth (Rwanda Environment Management Authority, 2009). Due to the imposition by the Belgian territorial administration, numerous rapidly growing exotic trees like eucalyptus, grevillea, black wattle, cypress, cassia, etc. farmers have given them names in the local language (umuzonibari /cypress and inturusu/eucalyptus) (Christoffel, 1996).

Christoffel (1996) asserts that cypress is found in Nyugwe, Nyanza, Kibuye and in Butare. These trees were planted for providing timber, carpentery, joinery, fibers, veneer, particle boards, matchbox, paper and tongue and groove also is used to serve furniture and construction industry (Christoffel, 1996).

Methodology

To get data during the research, an arrangement was put in place with furniture manufacturers in Gakinjiro. The primary data was based on the open-ended interview questions. The study used qualitative research to collect ideas, concepts, design views and observations. The purposive sample used 20 participants. Random sampling was used to select people to be interviewed for getting distinct ideas to the research.

Presentation of Findings

Below is a compilation of all responses got from Gakinjiro furniture manufacturers.

When asked to comment on the beauty of cypress furniture items furniture manufacturers in Gakinjiro responded:

"Furniture items made from cypress are nice depending on how they are made the finishing" "Yes, because cypress is a good wood that has nice color"

"Cypress timber is nice, when you think about using cypress materials you bring hygiene in your house because cypress bring light when you clean well cypress material is much better than material imported from Dubai.

"They are nice. They look so bright."

"Cypress made furniture are beauty."

"Cypress furniture items in interiors look amazing."

"cypress look bright and attractive"

"they look beautiful"

"cypress materials are cleaned, they look bright"

"where cypress furniture are, there is brightness and cleaned." "They look nice."

"it has good look."

"They look nice but people can't like it the same way." "They look nice with beautiful color." "Are usable and bring good look." "They have good look."

"cypress produce good look in interior when colors are matching." "when well made, they present good outlook"

" they have good look and they look clean." "they look good and cleaned"

"they are bright."

" they look clean and beautiful."

"they have good look when well finished." "has brightness different from others" "yes, because they like cypress color" "they have good look"

"they bring beauty in home interiors" "cypress look bright and attractive" "they look beautiful"

"cypress materials are cleaned, they look bright"

"where cypress furniture are, there is brightness and cleaned. ""they look nice"

:they like them so much because it looks bright"

"it is expensive but present good look in home interiors." "they look good, when they are well manufactured "

"it looks bright when well finished."

Furniture manufacture were also asked how Rwandan considers cypress furniture items, below are their responses:

"I advise using cypress because is our product"

"good finishing and produced by professional furniture makers" "finishing with varnish"

"by good finishing and using paint" "finishing and paints"

In addition, respondents mentioned some infections on cypress furniture

"Water example using it in

Kitchen"

"when they are in contact with water"

"when they are in contact with water, they begin to be destroyed. "

Respondents mentioned interior materials made from cypress

"Furniture materials: shelf, chairs and living and other home materials." "furniture like chair and ceiling..." "yes, because cypress present beautiful natural color " "yes because it is a durable natural material"

"natural, cypress has bright color and also can take any color. "

"Yes, some who know the value of cypress, they use it in classrooms, in building." "cypress made funiture is attracting customers

these days."

"the problem can be when the absence of cypress trees can manifest" "No effect because cypress furniture items are lovely."

"is advice of using cypress because is our product"

"cypress can produce any material in addition they are available in Rwanda"

"no. Because they don't find them where they are. But when a person saw where cypress are used, they become attracted. "

"people nowadays likes mahogany materials but finding material in cypress well finished, they like them."

Moreover, it was noted again that respondents mentioned the finishing of cypress furniture items saying that:

"finishing and applying varnish on it"

"Maintaining well cypress wood then varnish it correctly." "Using varnish."

"applying varnish on it every year"

"is varnishing it well and when maintained they look nice."

"Furniture items like chairs, bed and wardrobe everything." "Beautiful living room can be made from cypress wood."

"Cypress can produce shelf and chair other different home materials." "wardrobe, ceiling and hangers"

"ceiling, furniture interiors"

Respondents mentioned the process of cypress manufacturing saying that:

"Example, when you made living room table out of cypress wood, you first do wood carpentry using machines, determine measures and varnish it well. Here, Cypress wood can produce any modern living room tables; round..."

"we first dry it like 3 mouths, then do carpentry using appropriate measures After we do finishing and apply on it three times of varnish. "

"through using machines, make well finishing and put paint" "by using modern machines, cleaning it."

"By drying it well, it can provide good materials."

"By doing carpentry of wood, wood finishing and applying varnish."

"to every material by well doing well carpentry of wood, and good finishing." " cut it well, does carpentry, finishing it well and paints it with varnish"

Also, respondents added properties of cypress "grows well."

"So much. Because is durable."

"cypress can produce any of material and can take different color paints" "by providing any shape and taking any color."

"is durable and bright"

" cypress are hard no factor can affect it."

"yes. Cypress can produce any material shape." "cypress has good look and it is hard." "cypress is hard. "

"it is a preferable wood to produce durable materials"

"they take any form and can be combined with other materials." "cypress wood takes any paints contrasting with interior color" " cypress resist rots and insects"

Result and Discussion

The analysis is based on the responses given by Gakinjiro furniture manufacturers. With the program Atlas.ti v7, code-book was created which helped in the analysis of the findings.

From the findings, it was noted that using cypress wood to customize furniture items for home interiors in Kigali can have a great impact when well designed and manufactured. It is more likely that customers will like cypress made products because of cypress furniture properties and the beauty of cypress furniture items.

This based on the answer respondents gave during the interviews. Like: Cypress

furniture items : are nice. They look so bright.

"bring beauty."

"cypress furniture items in interiors look amazing." "cypress look bright and attractive"

"they look beautiful"

And that cypress

"grows well." And that cypress furniture items are

"cypress can produce any of material and can take different color paints" "can provide any shape and taking any color."

"is durable and bright

Moreover, they indicated that the infections on cypress materials are not much. It is water. Besides, they mentioned how Rwandan population considers cypress furniture items saying: " they advice using cypress because is our product"

"yes, because cypress present beautiful natural color " "yes because it is a durable natural material"

"natural, cypress has bright color and also can take any color. "

Respondent highlighted the manufacturing process of cypress and finishing of cypress as the source of cypress beauty.

Maintaining well cypress wood then varnish it correctly." "Using varnish."

"applying varnish on it every year"

"is varnishing it well and when maintained they look nice." "good finishing and produced by professional furniture makers"

"by good finishing and using paint"

Conclusion

An important investment should be poured into promoting and customizing local materials found in Rwanda like cypress as material to be used in furniture making and home interior designs. Considering the use of local materials can be important elements in reducing importing related expenses and promoting local materials .Promoting local materials is the key to the country's economy and development. In addition, it will stimulate new ideas to designers by making new designs of local materials and relating them to modernity.

References

- Harris. C (2011).*Atlantic Cypress: A Technical Guide for Building and Design Professionals.* [Retrieved on November 2, 2014] from http://www.ucfp.com/global/AtlanticCypr ess/pdf/Atlantic%20Cypress%20Tech%2 0Guide.pdf
- Hurford .A (2011). Australian Hardwood and Cypress. Technical and detailing guide.[Retrieved on November 2, 2014] from http://www.hardwood.timber.net.au/docs/

http://www.hardwood.timber.net.au/docs/ techguide.pdf

- Harris. Chuck (2012). *Plantation Cypress.* [Retrieved on November 2, 2014] from http://www.plantationcypress.com/
- Howard. J (2011). Hardwood Incorporated. Cypress: Beautiful and Durable Wood for Exterior and Interior Use. [Retrieved on November 2, 2014] from

http://www.hardwoodweb.com/docs/HW WARBlog_73_1313601618.pdf

- Schrenck.H (2012). Southern Cypress Manufacturers Association. What is Cypress?
- [Retrieved on November 2, 2014] from http://www.cypressinfo.org
- Donald .J (2009). *Inspection of cypress lumber*. [Retrieved on November 10, 2014] from http://www.eldercypresslumber.com/Data %20Book8.htm
- Ginsburg. E (2010). *Cypress Tree History*. [Retrieved on November 10, 2010] from http://www. Ginsburg.Eww.Ginsburg. E/130141cypress-tree-history.html

- Christoffel den Biggelaar (1996). Farmer Experimentation and Innovation. A case study of knowledge generation processes in agroforestry systems in Rwanda. [Retrieved on November 12, 2010] from http://www.fao.org/docrep/006/w2406e/ W2406E00.HTM#TopOfPage
- Joshua. M (2011) Cypress Exteriors -Surrounding Yourself with Cypress.[Retrieved 11 12, 2014] from swampland-cypress: http://www.swamplandcypress.com/cypress-exteriors.html
- Joshua. M (2011) *building with cypress-Your Dream Home, Camp or Even Boat.* [Retrieved 11 12, 2014] from swampland-cypress: http://www.swamplandcypress.com/cypress-homes.html
- Joshua. M (2011) CYPRESS IN HISTORY-Discover the role of "The Eternal Wood" throughout history. . (2011). [Retrieved 11 12, 2014] from SWAMPLAND-CYPRESS: http://www.swamplandcypress.com/Cypress-history.html
- Joshua. M (2011) cypress interiors-Adding Character to Your Home. (2011). [Retrieved 11 12, 2014] from swampland-cypress: http://www.swamplandcypress.com/cypress-interiors.html
- Rwanda Environmental Management Authority (2009). Forest and protected areas Current status of Forestry Resources in Rwanda. [Retrieved 11 12, 2014] from http://www.rema.gov.rw/soe/chap6.php