Our Agenda

Mission/Vision

Where We Have Been

Green Construction

Where We Need To Go

What Do We Need To Do Now
Bamboo Living Mission/Vision

Protect and Restore

In 1995, David Sands and Jeffree Trudeau founded Bamboo Living to protect and restore the Earth’s forests by adapting bamboo for Western building practices.

- bamboo grows incredibly fast
- bamboo is a grass species that when harvested sustainably, the same plant renews itself for many decades
- bamboo is flexible and resilient,
- bamboo has performed well in hurricanes and earthquakes.
We were initially motivated by the efficiency in land and forest resources.

- For wood frame BC44: $0.0138 \text{ acres/sqft} \times 1000 \text{ sqft} = 13.77 \text{ acres}$ of a Loblolly pine forest in SE USA are needed for a 1,000 sqft BC44 at 500 board feet per acre per year. That means that those same 13.77 acres can produce enough wood for one 1,000sqft BC house every year if the forest is sustainably harvested at a rate of 500 board feet per acre per year.

- For bamboo BC44: $0.0019 \text{ acres/sqft} \times 1000 \text{ sqft} = 1.9 \text{ acres}$ of bamboo are needed for a 1,000 sqft BC44. This means that those same 1.9 acres can produce enough bamboo for one 1,000sqft BC house every year if the bamboo forest is sustainably harvested at a rate of 960 poles per acre per year.
Average wet weight of culm is 25kg. 13 kg weight x 50% = 6.5kg Carbon x 3.67 = 23.85 kg CO2e which is 52.5 lbs CO2e per pole.

82 lbs CO2e in culm, leaves, branches, rhizome mat and fine roots.
alle Hawaii
COTTAGE TROPICAL
SUGGESTIONI D’ORIENTE PER TUTTA IN BAMBU. UN’ARCHITETTURA DA SOGNO, CHE PUO’ DIVENTARE GRAZIE A UN INGENUO SPOSTAMENTO DI PREFABBRICAZIONI. 

FOTO DI GIANNI BASSO/AGI VEGA, TESTO DI BARBARA B.
In 2004 Bamboo Living became the first company in the world to gain ICC-ES certification for structural bamboo.
In 2005 Bamboo Living buildings withstood multiple 173mph hurricanes.
Bamboo Living Factory Vietnam
17 years of construction
Cultural Creatives hunger for a deep change in their life that moves them in the direction of less stress, more health, lower consumption, more spirituality, more respect for the earth and the diversity within and among the species that inhabit her.

Cultural Creatives are a growing number of people who want to see deep, integral change in the cultures that have evolved in industrialized nations.

Cultural creatives seek new ways to work and learn together.

Cultural Creatives are radically uncertain about what happens next, but answer the call to be in service to the world, and in service to this emergence of a new, integral culture.
Green Construction
natural marketing institute: the LOHAS consumer

NMI’s 2007 LOHAS Consumer Segmentation Model

- Unconcerned about the environment and society
  - Practical
  - Interested in LOHAS behavior when they can make a difference
  - "Municipal" behavior

- LOHAS, 19%
  - Active stewards of the environment
  - Dedicated to personal and planetary health
  - Lifestyle-oriented
  - Heaviest purchasers of green/socially responsible products

- Conventionals, 19%
  - Secondary target for many mainstream LOHAS products
  - Personal health is their primary motivation
  - More likely to use LOHAS-related consumables (compared to durables)

- Naturalites, 19%
  - Good intentions, little action
  - Trendy
  - Price sensitive

- Drifters, 25%
  - Secondary target for many mainstream LOHAS products
  - Personal health is their primary motivation
  - More likely to use LOHAS-related consumables (compared to durables)

(% general population in NMI defined consumer segments)
The LOHAS Consumer

- A trend predictor
- Personal health + planetary health
- Values driven
- Price insensitive
- High influence on others
- Highest green buyers
- Information junkies
- Eco-lifestyle
- CSR seekers (and boycotters)

LOHAS 19%
40 million consumers
Green Construction

Natural Marketing Institute: The LOHAS Consumer

Other LOHAS Key Characteristics

Early Adopters

(Q41 - % consumer group stating the following...)

Innovators: 2%
Early Adopters: 14%
Early Majority: 34%
Late Majority: 34%
Laggards: 16%

LOHAS: 64%
Naturalites: 28%
Conventional: 27%
Drifters: 27%
Unconcerned: 16%

"I am generally first or ahead of most to start using new environmentally friendly products"

Based on bell curve standard deviations

(% by segment)
Despite the economic downturn in the U.S. and the heavy employment losses being felt by the construction industry, the outlook for the Green Building market remains very positive for 2009. Additionally, Turner’s Green Building Market Barometer survey conducted in November 2008 found that 75% of commercial real estate executives said that the credit crisis would not hinder their ‘Green’ building activity in 2009.

**Market Outlook**

Combined, the Commercial and Residential Green Building market will reach $32.3 billion in 2009 and grow to $128.6 billion in 2013. In 2009, the Commercial and Institutional ($26.5 billion) market will be slightly higher than the Residential ($25.8 billion) market, but by 2013 the Residential market will exceed the size of the commercial market by $2.6 billion.

The Commercial and Institutional Green Building market will grow by an annual average of 24.3% from 2009 to 2013, and reach a total value of $63.0 billion in 2013.

The Residential Green Building market will grow by an annual average of 26.5% from 2009 to 2013, and reach a total value of $65.6 billion in 2013.

**Sector Activity**

In 2009, Commercial Real Estate executives expect Green Building activity to be most prevalent in the Public Facilities, Education, and Commercial sectors. Combined these three sectors will account for 74% (40%, 24%, 20% respectively) of Green Building activity.

**Industry Drivers**

1. Lower Energy Costs
2. Operating Cost Savings
3. Green Building Price Premiums

**Recommendation**

Capitalize on Green Building initiatives now rather than later to capture the largest share of the green building market.

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2. Source: Data based on 754 surveys of commercial real estate executives conducted for Turner’s Green Building Market Barometer (November 2008).
Green Construction
the size of the market

Green Construction Economic Impact
From 2000–2008, the green construction market has:
- Generated $173 billion dollars in GDP
- Supported over 2.4 million jobs
- Provided $123 billion dollars in labor earnings

From 2009–2013, this study forecasts that green construction will:
- Generate an additional $554 billion dollars in GDP
- Support over 7.9 million jobs
- Provide $396 billion in labor earnings

Source: Booz Allen Hamilton for the USGBC 2009

USGBC Economic Impact
Between 2000–2008, LEED related construction spending has:
- Generated $830 million in GDP
- Supported 15,000 jobs
- Provided $703 million in labor earnings

Between 2009–2013, we forecast that LEED related spending will:
- Generate an additional $12.5 billion dollars in GDP
- Support 230,000 jobs
- Provide $10.7 billion in labor earnings
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what is green?

Counties & Residential Green Building Standards

NAHB National Green Building Program™

LEED-Gold 2002

Leadership in Energy & Environmental Design 2.0

U.S. Green Building Council

Leed Platinum

Leed Gold

Leed Silver

Leed Certified
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what is green?
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What is green?
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what is green?

AIR QUALITY
- NON-TOXIC
- NON-ALLERGENIC
- NO OR VERY LOW VOCs
- NO COMBUSTION GASSES
- NO PARTICULATES
- MOLD FIGHTER
- AIR PURIFIER
- SOUND INSULATOR

CONSERVATION
- RECYCLED, RECLAIMED, REUSED
- RAPIDLY RENEWABLE
- PROTECTED/STEWARDED
- NON-POLLUTING
- SAFER CHEMISTRY
- DURABLE
- WATER SAVER
- WASTE REDUCER

LOCAL
- LOW CARBON FOOTPRINT
- LOCAL BUSINESS STIMULANT

ENERGY
- ENERGY-CONSERVING DESIGN
- RENEWABLE ENERGY SOURCE
- DAYLIGHTING
- LOCAL

RESPONSIBILITY
- RESPONSIBLE MANUFACTURING
- DEVELOPMENT OF GREEN JOBS
- ENVIRONMENTAL PROTECTION
- WORKER PROTECTION
- TRUTHFUL MARKETING
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green scorecard concept

FUTURE HOME scorecard

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<th>Bamboo</th>
<th>CARBON IMPACT SCORE</th>
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<td>CARBON FOOTPRINT (TONS)</td>
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<td>CO2e STORAGE (TONS)</td>
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<td>PER ACRE YIELD</td>
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<td>ENERGY CONSERVATION</td>
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<td>SOCIAL RESPONSIBILITY SCORE</td>
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1. The smart grid and connected home.
2. Energy labeling for homes and office buildings.
3. Increased use of building information modeling (BIM) software.
4. Buy-in to green building by the financial community.
5. "Right-sizing" of homes.
8. Carbon calculations of building materials and processes.

Sean Penrith, executive director of the Earth Advantage Institute, a non-profit based in Portland that certifies green buildings.
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what does the green home buyer want?

- a safe community with shared values
- food centered
- more experiential, less material
- new urbanist lifestyle
At Bamboo Living we believe in democratizing the cost of green building - the stakes are high, and the ultimate costs are far greater than the cost of the building materials.

- it is not a question of if we can build green. it’s a question of how.

- it is possible to make building green possible for every family’s income level.

- to get there we must combine best practices, optimum efficiencies, science, technology, innovation, but most importantly, visionary leadership.
The Bamboo Living Agenda

From the spirit of bamboo to the future of bamboo
small is beautiful
Next Steps:

Our BIG idea
Luau on the Lanai's
Pakalana in Puako
5.20.12 Sunset til Sunrise
thanks!