



Handmade Decorative Rugs *Are* Sustainable!

## Why Are Handmade Rugs Sustainable?

Handcrafting weavings—a millennia-age art form featuring an unsurpassed versatility of design and construction techniques available at a broad spectrum of price points.

- They are handcrafted with organic materials—e.g., wool, cotton, silk, and hemp. They are *intrinsically* green.
- Their durability, longevity, and recycling of materials are unsurpassed (vs. disposability of machinemade alternatives).

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- Compare with machinemades which account for 5 billion tons and 1% of landfill waste.
  - The healthiest alternative to machinemade carpeting which can outgas.
  - Handmade rug industry contributes to social and economic welfare in emerging economies, e.g.. Nepal (schools, family welfare).



# An Organic Handcrafting Process



# Design

Before weaving begins a design rendering called a "nakshar" or cartoon is created, usually drawn freehand on graph paper, with each square representing a single knot.





# Carding

The raw wool is cleaned, detangled, and hand-carded into fibers that are prepared for spinning.







# Spinning

The carded fibers are spun using a spinning wheel to make threads of yarn that are ready to be dyed.







# Dyeing

The spun bundles of yarn are submerged into a brewing pot of chrome or natural dyes until they obtain the intended shade of color.

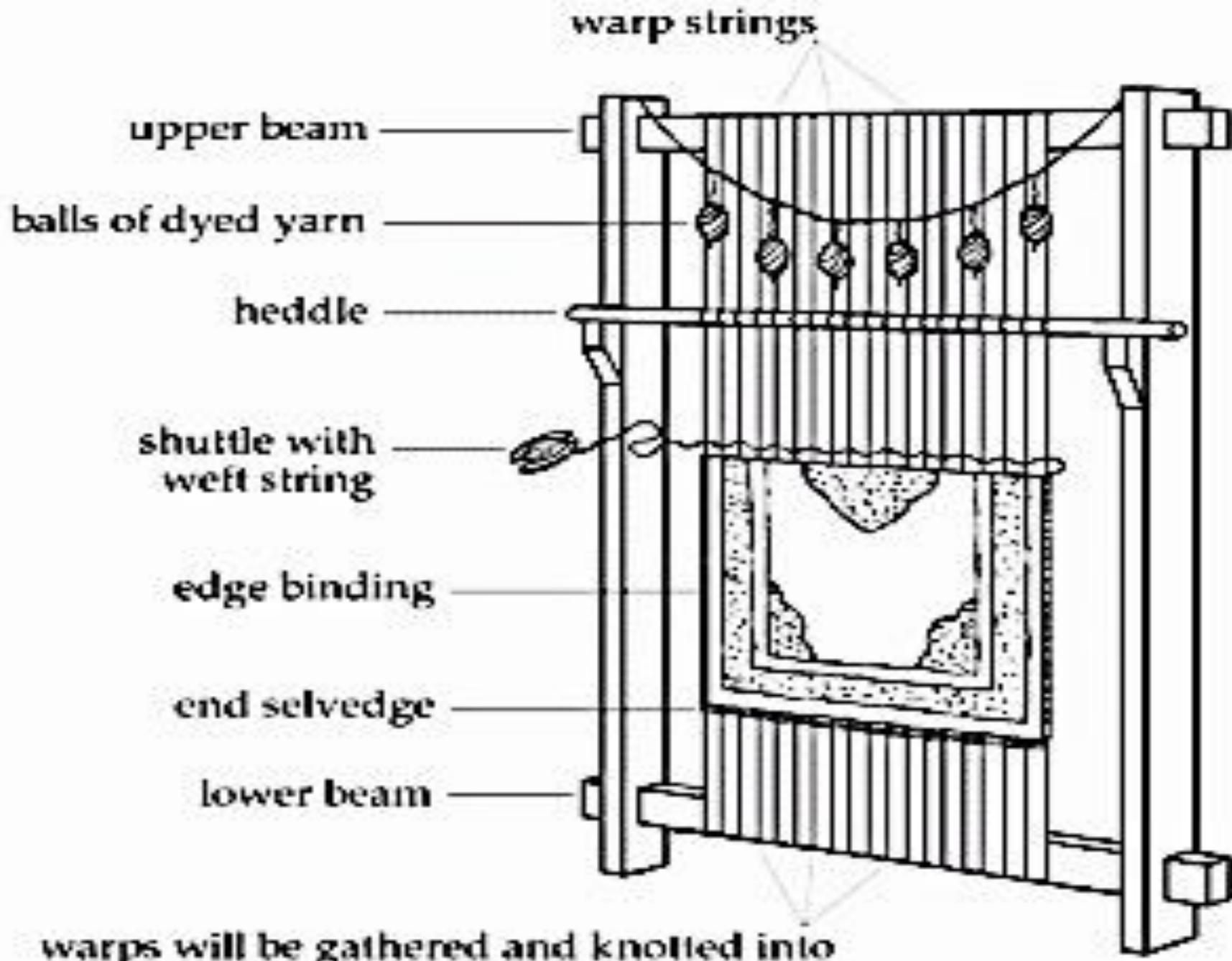






# Weaving

The yarn is handknotted on a loom by skilled weavers, bringing the design to life. This intricate art can be traced back almost 3,000 years and requires a great deal of precision and patience to master.



warps will be gathered and knotted into fringe when rug is cut from loom





















## Washing

The newly woven rug is soaked with soap and water and scrapped with wooden paddles to remove any dust, dirt and debris. The vigorous washing process provides luminosity to the rug.





## Drying

The washed rug is laid out to dry in the sun, a process that can take several days. The sunlight provides brilliance and luster to the woven creation.





# Stretching

The rug is put on a stretching frame in the sun to counteract the shrinkage that occurs during washing.







## Shearing

Uneven pile is sheared down to the desired pile height. This process will determine the overall finished look of the rug.

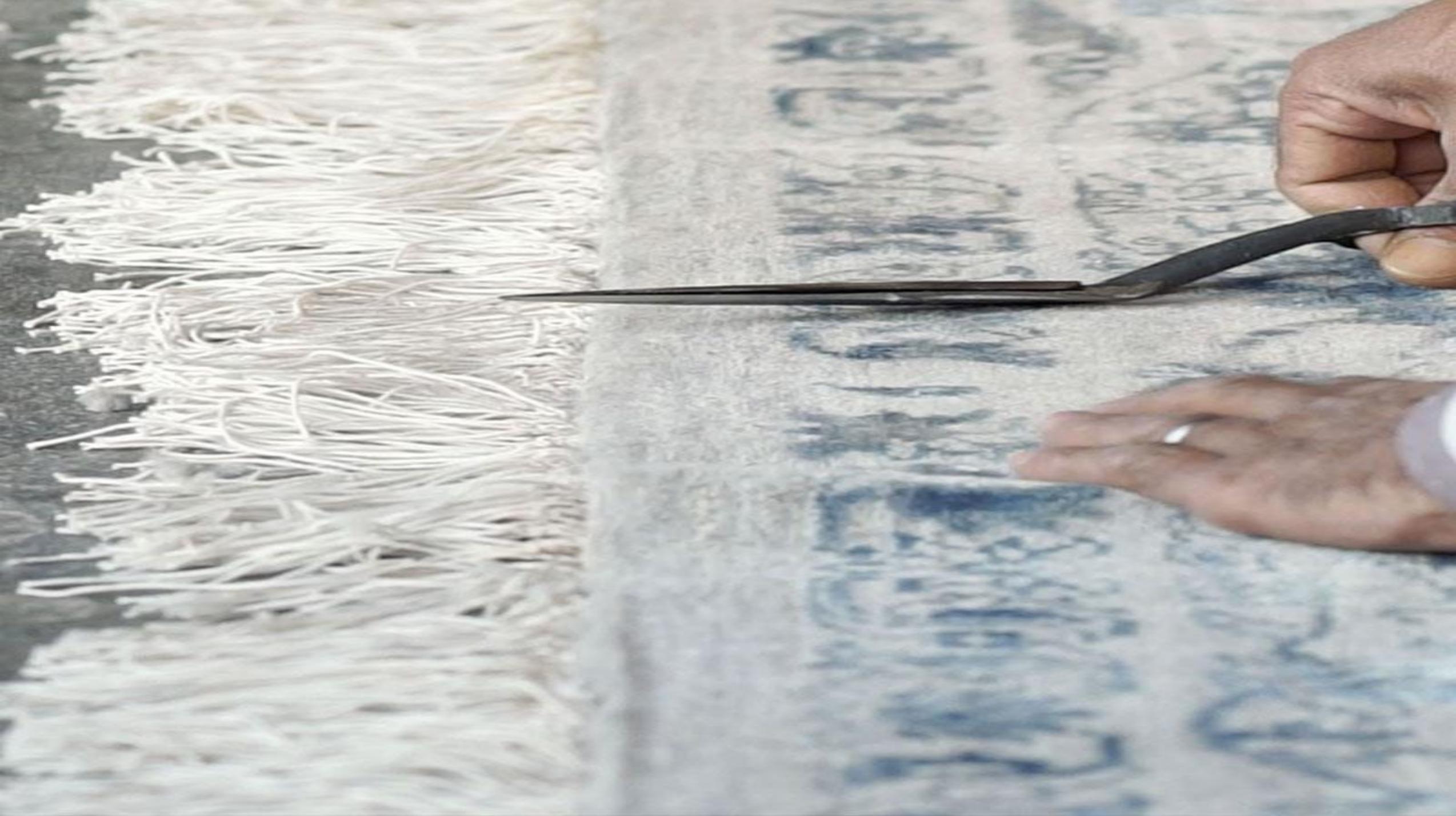




## Finishing

The rug is finished by hand. Many wool and silk rugs are hand-carved to enhance the design and add texture.







# Handweavings Have Many Lives!

Unsurpassed durability, longevity, and recycling of materials





















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## Compare with Machinemade Carpeting:

- Account for about 5 billion tons and 1% of US landfill waste.
- Most machinemade carpeting is produced with non-degradable petroleum byproducts that can't be recycled properly.
- Although accepted by most trash companies, the size of a room's worth of carpeting makes pick ups burdens sanitation workers.
- Recycling efforts--CARE (Carpet America Recovery Effort). Only a handful of companies recycle carpeting--a step in the right direction.



# Discarded Carpeting—An Eyesore for the Planet







# Your Health and Machinemade Carpeting

- Machinemade carpeting, padding, and backing may contain potentially toxic substances, e.g., benzene, styrene, toluene, vinyl acetate, PVC, fungicides, mothproofing, stain-proofing, mildew inhibitors, and antistatics.
- Outgassing of chemical treatments and primary materials—Cause of MCS (Multiple chemical sensitivities) and SBS (sick building syndrome)
- Carpet and Rug Institute (CRI)—voluntary-compliance Green Label program testing absence of harmful substances. Step in right direction.



# What Designers Are Saying

# Annette Stelmack





Annette Stelmack—co-author of *Sustainable Residential Interiors* and pioneer in eco-green design

- ▶ More eco-friendly area rug options than in wall-to-wall carpeting depending on materials used (e.g., wool, cotton, and silk).
- ▶ Combined impact of growing DIY (do-it-yourself) culture and online buying has generated buying spree of polypropylene area rugs—detrimental to health and environment.

# Clodagh



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- Handmade rugs produced with renewable human energy.
  - From spinning to weaving, handmade rug production is part of an “energy circle that creates a win-win situation for all.”
  - Positive and humanizing aspect of handcrafted production.
  - Tremendous value in taking rugs from 1 place to another.
  - Values sustainability in face of a disposable culture.

# Mary Douglas Drysdale



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- Developed a pulmonary reaction to newly installed wall-to-wall carpeting
  - Triggered her awareness of toxic off-gassing—“I became aware of carpeting’s toxic load and what it can do to us which most of us don’t realize.”
  - Triggered her passion for handmade rugs which she views as hypo-allergenic.



# The Social & Economic Impact of Handweaving



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- General unawareness of positive social impact of handweaving for emerging economies and international peace and prosperity.
  - Source of income in developing economies--Rugs produced help feed and educate families in Nepal, India, Pakistan, Afghanistan
  - Handweaving provides employment in multiple trades--e.g., weavers, wool spinners, dyers, designers, washers, office workers, quality controllers and other related positions (e.g., 10,000s in Nepal)
  - Sustaining handmade rug weaving craft helps stem migration and exploitation (e.g., Nepali exodus).
  - Benefit to women who are otherwise not allowed to work (e.g., Afghanistan)



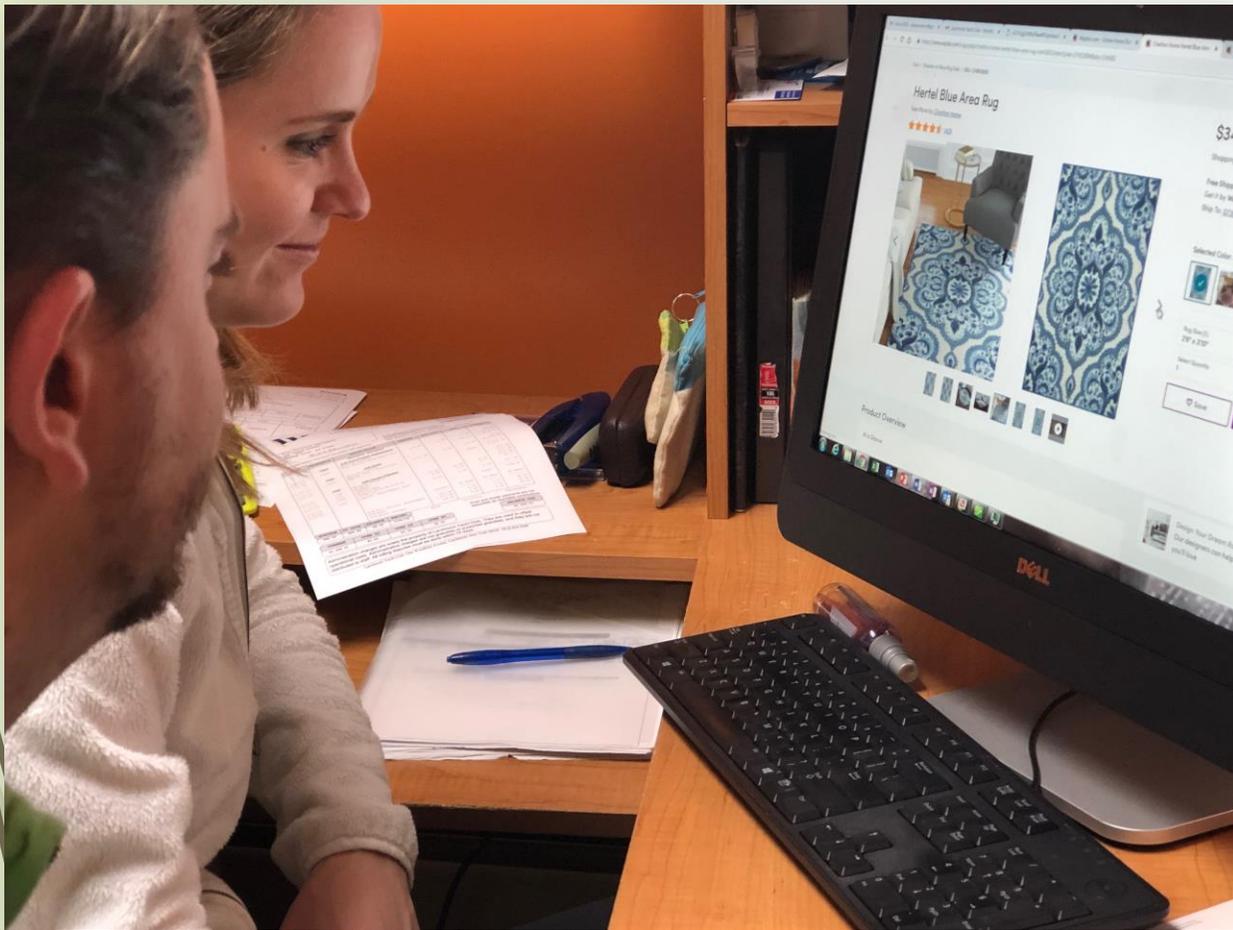




# Concluding Remarks

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- Traditional handmade rug industry's marketing is behind the times.
  - Ironically—no rating system yet established for handmade rugs, the ultimate green floor covering as for for building (e.g., LEED, WELL) and home furnishings and textiles.
  - Interior design industry's focus on “getting it done” vs. concern for long-term impact of decorative decisions. Sustainability has played little, if any, role.

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- Baby boomer consumers are downsizing and aging out of market.
  - Millennials complete purchases at the click of a button favoring value over quality.
  - Millennials are buying more disposable furnishings than ever before.
  - Millennials interested in organic “food culture” (e.g., farm to table) and the planet.
  - Emergence of planet-friendly brands ranging from clothing to beauty products.





## **Educating consumers on handmade rugs' sustainability is key to sales:**

- A unique handcrafted work of art
- Unsurpassed durability
- Unsurpassed longevity
- Unsurpassed versatility
- Hypo-allergenic