

# Object Lessons: Enduring Artifacts and Sustainable Solutions

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### Introduction

The relationship between sustainability and product design has been the subject of extensive debate in recent years, and is clearly complex and multifaceted. It is frequently presented in terms of product life cycle, materials, manufacturing, and environmental issues.<sup>1,2</sup> There also has been considerable discussion about the design of longer-lasting products, and of the links between products and services.<sup>3,4</sup> These approaches make important contributions to sustainability. They can help reduce product impacts and improve production efficiencies. However, they also tend to be rather prosaic and dominated by pragmatic concerns. As such, they seldom ask more fundamental questions about the meaning and place of products in our lives, and the contribution of material goods to what might be broadly termed "the human endeavor." Therefore, these approaches neither address the crux of the problem nor do they allow us to fully appreciate the magnitude of the shift in attitudes and expectations that is demanded by "sustainability."

Here, a different path is taken in an attempt to address this deficiency and, hopefully, to increase our understanding of sustainability and product design. Artifacts are considered in terms of their characteristics and meanings. The artifacts have been specifically chosen because they have existed in one form or another in human societies for millennia, and are still made and used today. When objects have been produced over such long periods of time, spanning diverse cultures, languages, and understandings, then we can be sure that there are lessons to be learned from them about our relationships with material things, and our contemporary efforts to tackle sustainable issues in product design and manufacturing.

In pursuing this line of thought, objects have been classified into three broad categories: (1) functional, (2) social/positional, and (3) inspirational/spiritual. The characteristics of objects in each of these categories are described, and their relationship to sustainability is discussed. These broad areas overlap, and objects that combine these characteristics also are discussed; and it is suggested that the "functional" plus "social/positional" combination is the most problematic in terms of sustainability. Furthermore, there are some objects that combine all three classifications. One of these in particular has been present in human societies for thousands of years, and

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- 1 W. Sachs, R. Loske, M. Linz, et al., *Greening the North: A Post-Industrial Blueprint for Ecology and Equity* (London: Zed Books Ltd., 1998), 110.
  - 2 P. Hawken, *The Ecology of Commerce: A Declaration of Sustainability* (New York: HarperCollins, 1993), 148.
  - 3 *Eternally Yours: Visions on Product Endurance*, E. van Hinte, ed. (Rotterdam: 010 publishers, 1997).
  - 4 E. Manzini and F. Jégou, *Sustainable Everyday: Scenarios of Urban Life* (Milan: Edizioni Ambiente, 2003).

is ubiquitous today across much of the world. This object, which has an exceptionally intense sense of “possession-ness” associated with it, will be considered in more detail to explore what lessons it might hold for sustainable design and manufacturing.

### Sustainable Objects

A perusal of the collections in many of our large, national museums<sup>5</sup> reveals that certain kinds of artifacts have been prevalent in human society since very early times; notably items such as pottery, tools, weapons, jewelry, and statuary. These types of objects have been in continuous production for at least five thousand years, and the earliest examples of jewelry recently were estimated to be some seventy-five thousand years old.<sup>6</sup> These objects generally are valued for their utility, their decorative and aesthetics qualities, and/or for their symbolic or ritualistic roles. The value attributed to an object usually will emphasize one of these above the others; and while a particular artifact might be rather ephemeral in terms of its materials, its style, or its motif, the general “object types” mentioned above have persisted over very long periods of time.

These kinds of objects can rightly be characterized as “sustainable,” the sheer longevity of their production and use clearly testifies to their enduring importance in supporting human existence or in nourishing human culture. Therefore, it will be useful to examine some of their general characteristics. In turn, these characteristics can be considered in relation to human needs and values, and therefore can inform our contemporary response to product design and sustainability.

### Object Characteristics

The examples of enduring objects introduced above can be classified into three broad categories: (1) *Functional Objects*: Tools, weapons, and everyday pottery are valued primarily for their usefulness. If a tool is ineffective, its value is severely diminished—it would be described as “useless.” Similarly, a weapon is judged by its usefulness in hunting or in affording protection, and a ceramic pot by its ability to hold liquids. These objects are designed to accomplish practical tasks; design considerations focus on effectiveness, safety, and user comprehension. Therefore, their chief characteristic is “functionality.”

(2) *Social/Positional Objects*: Jewelry items such as necklaces, earrings, and bracelets; cosmetics and tattoos; and badges, brooches, and medals all are nonutilitarian. While they serve a purpose, they are not practical implements or utensils. Instead, they are used to express identity, to be decorative, to enhance one’s appearance, or to indicate one’s rank, achievement, or affiliation. The chief characteristics of these products are their “social” or “positional” qualities.<sup>7,8</sup> They serve as social signifiers that can enhance one’s sense of self-esteem, one’s social acceptance, or indicate one’s social status.

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5 A number of national museums have online collections, such as the British Museum at: [www.thebritishmuseum.ac.uk](http://www.thebritishmuseum.ac.uk) and the National Archaeological Museum of Athens at [www.culture.gr](http://www.culture.gr).

6 J. Amos, *Cave Yield “Earliest Jewellery”* (BBC News Online) [www.news.bbc.co.uk/2/hi/science/nature/3629559.stm](http://www.news.bbc.co.uk/2/hi/science/nature/3629559.stm) (4/15/2004, 7:27 p.m.).

7 K. Betts, *Positional Goods and Economics. Lecture Notes*, Swinburne University of Technology (Australia) <http://home.vicnet.net.au/~aespop/positionalgoods.htm> (4/14/2004, 2:59 p.m.).

8 S. Lansley, *After the Gold Rush—The Trouble with Affluence: “Consumer Capitalism” and the Way Forward* (London: Century Business Books, 1994), 98, 103.

(3) *Inspirational/Spiritual Objects*: A third category can be classified as inspirational or spiritual in character. It includes religious statuary, icons, and fine art objects. These objects refer to or convey inspiring, sacred, or spiritual ideas. They are physical expressions of profound understanding and beliefs, and because of this they are considered deeply meaningful. They often have religious, magical, or talismanic associations, and can serve as reminders or touchstones for our most deeply felt yearnings.

These three categories represent three very significant types of objects—objects that have stood the test of time and held their place in human society irrespective of culture, class, beliefs, and language. Therefore, we can conclude that such objects are “nontrivial” and, at least in terms of their continuous presence and use in human society, sustainable. We can infer that they fulfill important human needs. Indeed, when we compare their characteristics with our understanding of human needs, such as the modified version of Maslow’s Hierarchy of Human Needs<sup>9</sup> and Hick’s natural, ethical, and spiritual meaning,<sup>10, 11</sup> it becomes clear that, taken together, these three sets of product characteristics correspond to a broad and comprehensive range of human needs:

*Functional objects* allow us to fulfill our physiological and biological needs, as well as our safety needs such as ensuring personal security or fending off danger.

*Social/Positional objects* refer to our need for love, belonging, social acceptance, our standing within a social group, our sense of achievement, and self-esteem.

*Inspirational/Spiritual objects* refer to our need to know, our search for meaning, our aesthetic sensibilities, personal growth, our spiritual needs, and our need to reach out beyond ourselves to help others attain their potential.<sup>12</sup>

However, there are many objects that are not adequately described by just one of these three sets of characteristics; instead, they bridge two or, in some cases, all three of the categories. A consideration of these more complex objects yields, on the one hand, insights about object types that are problematic in terms of sustainability, and on the other hand, object types that hold fundamental lessons for the design and manufacture of sustainable products.

We can identify objects that have both “functional” and “social/positional” qualities, others that have “spiritual/inspirational” and “social/positional” characteristics, and still others that have “functional,” “social/positional,” and “spiritual/inspirational” characteristics. (Objects that have only “functional” and “spiritual/inspirational” characteristics probably are not feasible).<sup>13</sup> Let us now briefly look at objects that combine these various characteristics:

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- 9 V. Postrel, “The Marginal Appeal of Aesthetics: Why Buy What You Don’t Need,” *Innovation* (Spring 2004, The Journal of the Industrial Designers Society of America, Dulles, Virginia): 30–36.
- 10 J. Hick, *An Interpretation of Religion: Human Responses to the Transcendent* (New Haven, CT: Yale University Press, 1989), 129–171.
- 11 S. Walker, *Games on a Stone Pavement: Design, Sustainability, and Meaning* (Lecture presented at The Royal Society of Arts, London, October 2001) ([www.rsa.org.uk/events/search .asp](http://www.rsa.org.uk/events/search.asp).) Full text available at: [www.ucalgary.ca/uofc/faculties/EV/people/faculty/profiles/walker/index.htm](http://www.ucalgary.ca/uofc/faculties/EV/people/faculty/profiles/walker/index.htm).
- 12 Postrel, “The Marginal Appeal of Aesthetics: Why Buy What You Don’t Need,” 36.
- 13 Objects that have “functional” and “spiritual/inspirational” characteristics, without possessing some “social/positional” qualities, probably are impossible to find. This conclusion would correspond to Maslow’s suggestion that human needs are hierarchical, in which case objects that have both “functional” and “spiritual/inspirational” characteristics also would possess some “social/positional” qualities.

*Inspirational/Spiritual + Social/Positional Objects* include ornaments, commercial art pieces, souvenirs, home décor items, and statuary or art objects that have social/positional meaning attributed to them, such as status, esteem, or personal identity. This category also can include items based on traditional cultures and religions such as the commercially produced Haida Masks of the Canadian west coast. These types of sculptures are produced today for the tourist or collector markets and, in the process, changes occur. Some of these changes can be very positive, creating new opportunities for artistic expression while simultaneously opening up new avenues for economic development and self-determination. However, the changes also can be negative. The objects can become modified, clichéd, and stereotyped in order to serve the market.<sup>14,15</sup> When these nonfunctional objects become commercialized; their religious, ritualistic, or cultural significance is no longer relevant, they become primarily decorative, and there is a danger of them becoming a pastiche or falling into kitsch.

These object types do not pose much of a problem in terms of sustainability—on the contrary, their production can be a positive development. They are generally “low-tech,” frequently handmade at the local level, employ local skills, and cultural and aesthetic sensibilities, and perpetuate cultural ties albeit, in some cases, in a new and often diluted form. Taken to extremes, this last point can become destructive to a culture’s heritage. Nevertheless, local employment and the use of local materials and local designs—frequently with natural materials—can be socially and economically beneficial, and environmentally of relatively low impact. In addition, the handmade and cultural or personal significance of these types of objects means that people often will keep them for a long time, even passing them down from one generation to another. Frequently they are regarded as precious personal possessions and they may have heritage value which, in turn, prevents them entering the waste stream.

*Functional + Social/Positional Objects* include consumer goods such as automobiles, watches, music equipment, footwear, and “designer-labeled” goods. All these possess positional value in addition to their essential utility. (Ornaments and souvenirs derived from functional objects such as decorative pots also can combine functionality with social value but, in these cases, the primary purpose is decorative so their functionality is largely irrelevant.)

These are functional products that set one apart from the crowd and in terms of sustainability they are, by far, the most problematic. For the most part, they are mass-produced goods that are promoted and distributed globally; they drive consumerism and are the cause of many environmental and social ills. They not only combine functionality with positional value, they also become quickly outdated. There are two main reasons why these objects are so exceptionally time dependent. First, both their functionality and

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14 K. L. Howard and D. F. Pardue, *Inventing the Southwest: The Fred Harvey Company and Native American Art* (Flagstaff, AZ: Northland Publishing, 1996), 7.

15 V. Papanek, *The Green Imperative: Natural Design for the Real World* (New York: Thames and Hudson, 1995), 234.

their positional value are intimately connected to advances in technology. Secondly, their positional value is tied to changes in fashion and styling. Within our contemporary market-driven, mass-production system, the linking of technological progress and/or styling with social status has become an extremely potent combination. Today, virtually all our utilitarian goods have the potential to be positional, from cars and audio products to refrigerators, kettles, and bathtubs. When this occurs, an object's value is determined not simply by its ability to properly function, but also by its ability to convey social position, aspiration, or affiliation. This positional value inevitably is short-lived because technology is always advancing and styling is always changing. It is these factors that spawn the upward spiral of consumerism that is so environmentally and socially destructive.

*Functional + Social/Positional + Inspirational/Spiritual Objects* is the final category to be considered here. It includes objects related to religion and particularly to forms of prayer, for example, a Muslim prayer mat, a Buddhist prayer wheel, or a Jewish prayer shawl. Each serves a functional purpose: the prayer mat defines a space for prayer, each rotation of the prayer wheel represents a prayer's recitation, and the prayer shawl is a mnemonic device.<sup>16</sup> Inseparable from these functions, each has a symbolic religious or spiritual significance, each is a signifier of social identity, and, potentially, each also may be associated with social status or position. These are important religious and cultural artifacts that all pertain to our inspirational or spiritual understandings, and each is "used" in an active, functional way that is quite different from a religious statue or painting.

These types of artifacts are considered precious because of their sacred associations. Their design and use is steeped in tradition, and they are not simply discarded when a newer model or style comes along. Therefore, they can be described as "sustainable"—they have a long history in human society, they are highly valued, and they have profound meanings. That said, these examples, the prayer shawl, prayer wheel, and prayer mat, each are specific to a particular religious culture. There is, however, a similar object that is found all over the world and in most of the major religions. We will consider this object in rather more detail because it holds important lessons for our understanding of sustainability and material culture.

### **An Enduring Object**

Imagine an object that is used today by rich and poor, young and old, healthy and sick; an object that fulfills a prosaic, utilitarian role, and has a deeply spiritual significance; that can be decorative and highly aesthetic; and has for its owner a profoundly personal value independent of price, quality, or materials but is inherent to that *particular* object. Imagine, too, that such an object has a wide variety of designs and manifestations; that it can be mass-produced for a few pennies or, for a similar cost, made at home. Perhaps the contemplation of such an object would allow us to see anew some

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16 *Numbers 15:39*, The Holy Bible—New International Version (London: Hodder and Stoughton, 1979), 174.

of the failings of our contemporary, rather limited approaches to product design and production, and offer some pointers for a more sustainable and more inclusive future.

In the tragedy of Baghdad, a man scarred with the wounds of conflict holds this object.<sup>17</sup> High in the Himalayas, a young boy uses it to keep a tally. A smaller version can be seen in the fingers of an old man in a café in Athens. In New York, it may be found in the pocket of a business suit or in a fashionable Gucci handbag. Many Chinatown stalls can be found bursting with different versions in all shapes, sizes, and colors. It is an object that crosses boundaries of time, belief, gender, culture, and class. The year October 2002–October 2003 was dedicated to it.<sup>18</sup> In December, 2003, five-hundred of these objects were used by British artist Mark Wallinger to decorate the Christmas tree at Tate Modern in London.<sup>19</sup> It is variously known as the *mala*, the *tasbih*, the *rosary*, or simply as “prayer-beads.” Throughout the centuries, it has carved out a unique place in human culture as an object that ties the physical or outer person with the inner, contemplative, and spiritual self.

The widespread and enduring use of prayer-beads, together with their fundamental relationship to the human search for meaning, make them an important artifact for consideration by the product designer seeking to better understand the relationship between sustainability and material things.

### Prayer-beads

*And if I bidde any bedes, but if it be in wrather,  
That I telle with my tonge is two myle fro myn herte.*  
– William Langland, fourteenth century, England<sup>20</sup>

At their most basic, functional level, prayer-beads are used for keeping track of repeated chants or prayers. Their most common form is a simple circle of beads or knots on a string, ending in a tassel or religious symbol. They are thought to have originated in Hinduism about three-thousand years ago.<sup>21</sup> Buddhists have used them since very early times,<sup>22</sup> the Muslim *tasbih* dates back to about the ninth century,<sup>23</sup> and the Catholic *rosary* to the fifteenth century.<sup>24, 25</sup> The Orthodox churches use knotted *prayer ropes*, Anglicans have a version,<sup>26</sup> and the Baha’i faith uses beads similar to the *tasbih*. There also are secular versions known as “worry-beads.”

### Characteristics of Prayer-beads

Let us now look in a little more detail at prayer-beads in order to develop some insights that will be useful in our understanding of product design and sustainability. The various uses and meanings of prayer-beads include:

*A Tallying Device:* A bead, representing one prayer in the cycle, is held in the fingers while the prayer is recited. In this respect, they serve as a functional tool.

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- 17 M. MacKinnon, *Would-be Warriors Return from Abroad: Iraqi Call to Arms* (*Toronto Globe and Mail*, April 2, 2003).
- 18 Apostolic Letter *Rosarium Virginis Mariae of the Supreme Pontiff John Paul II to the Bishops, Clergy, and Faithful on the Most Holy Rosary*, October 2002–October 2003 (October 16, 2002) ([www.vatican.va/holy\\_father/john\\_paul\\_ii/apost\\_letters/documents/hf\\_jp-ii\\_apl\\_20021016\\_rosarium-virginis-mariae\\_en.html#top](http://www.vatican.va/holy_father/john_paul_ii/apost_letters/documents/hf_jp-ii_apl_20021016_rosarium-virginis-mariae_en.html#top)) (October 19, 2002, 10:48 a.m.).
- 19 M. Kennedy, *Artist Trims Tate Tree* (*The Guardian*, Manchester, December 13, 2003) ([www.guardian.co.uk/print/0,3858,4818609-110427,00.html](http://www.guardian.co.uk/print/0,3858,4818609-110427,00.html)) (March 17, 2004, 3:08 p.m.).
- 20 W. Langland, *Piers the Ploughman* (fourteenth century) (London: Penguin Books Ltd., 1966), 5.401–5.402, 73. Middle English version quoted here available at: <http://etext.lib.virginia.edu/cgi-bin/browse-mixed?id=LanPier&tag=public&images=images/mideng&data=/lv1/Archive/mideng-parsed> (May 25, 2004, 10:30 p.m.).
- 21 R. Gribble, *The History and Devotion of the Rosary* (*Our Sunday Visitor* Publishing Division, Huntingdon, IN, 1992): 130 and 169.
- 22 *Ibid.*, 169.
- 23 E. Wilkins, *The Rose-Garden Game: The Symbolic Background to the European Prayer-Beads* (London: Victor Gollancz Ltd., 1969), 32 and 56.
- 24 Gribble, *The History and Devotion of the Rosary*, 166.
- 25 D. Chidester, *Christianity: A Global History* (New York: HarperCollins, 2000) 275.
- 26 L. C. Bauman, *The Anglican Rosary* (Telephone, Texas: Praxis, 2001), 4.

*An Aid to Concentration and Meditation*: Essentially, prayer-beads are a device to assist concentration while praying or meditating.<sup>27,28</sup> The fingering of the beads is a repetitive activity that can be done without thinking; more important, it is an activity that occupies the physical body. Pascal talked of using such routines in order to enable us to act unthinkingly and mechanically, in order to subdue the machine and the power of reason.<sup>29,30</sup> This is a critical aspect of prayer-beads; the repetitive action produces a quieting effect.<sup>31</sup> We see similar mechanical routines practiced all over the world because they are associated with spiritual growth, including: the spinning of the prayer wheel, the raking of a Zen garden,<sup>32</sup> and the rocking action of Orthodox Jews during prayer.<sup>33</sup> These practices are thoughtless or “unreasoned” actions, which facilitate meditation and, potentially, inner growth. It is this fundamental purpose that raises prayer-beads above the merely mundane and functional. The simple string of beads is an instrument of synthesis—an aid in bringing together the inner and outer, or physical and spiritual.<sup>34,35</sup> Thus, the prayer-beads are profoundly meaningful, which, as we shall see, is relevant to our understanding of sustainability.

All the major spiritual traditions are expressed, on the one hand, through teachings and traditions that often are somewhat esoteric and difficult to grasp and, on the other hand, through popular understandings and customs. In this respect, prayer-beads have various other meanings that add to their widespread appeal.

*A Talisman*: Prayer-beads often are regarded as a lucky charm.<sup>36</sup> In some religions, losing one’s prayer-beads is an ominous sign<sup>37,38</sup> and, in Catholicism, even in recent times, the rosary has been associated with apparitions and miracles. It is commonly viewed as an object of comfort<sup>39</sup> and, in many Latin countries, it is a ubiquitous adornment of a car’s rearview mirror. Such associations are deeply rooted in the human psyche and, despite scientific and technological progress and our rationalistic outlook, they still are very much present in modern, secular societies. Other common examples include the omission of row thirteen in aircraft by major airlines in some of the world’s most scientifically advanced countries,<sup>40</sup> and the commonly held superstition that walking under a ladder brings bad luck.

*A Touchstone*: Prayer-beads can serve as a “remembering object.” It is not a mnemonic device in the usual sense. Rather, it serves as a benchmarking device—a “reminder object”—similar to a souvenir, but for a person of faith it is

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- 27 Gribble, *The History and Devotion of the Rosary*, 167.
- 28 M. Ward, *The Splendor of the Rosary* (New York: Sheed and Ward, 1945), 7–9.
- 29 Ibid., 8.
- 30 B. Pascal, *Pensées* (London: Penguin Books, revised edition, 1995), Series II (The Wager), section 418, p. 125, including footnote.
- 31 Wilkins, *The Rose-Garden Game: The Symbolic Background to the European Prayer-Beads*, 14.
- 32 Abbot O. Kido article in Rokuon-ji Zen Centre (California) newsletter (August 2000) available at <http://www.pages.prodigy.net/monkkido/news/august-2000.html> (February 10, 2004, 7:23 p.m.), no longer available.
- 33 G. R. Sims, *In an Alien Land* (Jarrold & Sons, 1911) available at: <http://www.thhol.freeserve.co.uk/simsalie.html> (May 25, 2004, 9:27 p.m.).
- 34 E. Herrigel, *Zen in the Art of Archery* (New York: Vintage Books, 1953), 43.
- 35 J. Needleman, *Lost Christianity* (New York: Bantam Books, 1980), 212.
- 36 Wilkins, *The Rose-Garden Game: The Symbolic Background to the European Prayer-Beads*, 29.
- 37 Gribble, *The History and Devotion of the Rosary*, 131–2.
- 38 Wilkins, *The Rose-Garden Game: The Symbolic Background to the European Prayer-Beads*, 29.
- 39 A. Vail, *The Story of the Rosary* (London: HarperCollins, 1995), 104–5.
- 40 B. Perkins, *Bottom Line Conjures Up Realty’s Fear of 13* (2004) available at: [http://www.realtytimes.com.rtcpages/20020913\\_13thfloor.htm](http://www.realtytimes.com.rtcpages/20020913_13thfloor.htm) (January 3, 2004, 4:24 p.m.). Example: Lufthansa, see Seatmaps available at: <http://cms.lufthansa.com/fly/de/en/inf/0,4976,0-0-780757,00.html> (May 30, 2004, 1:25 p.m.).

a reminder of that which is true and meaningful.

*Jewelry:* Prayer-beads also can be worn as jewelry. In this case, they are valued for their aesthetic and decorative qualities.

*A Badge of Identity:* In various ways throughout their history, prayer-beads have been used as an outer sign of one's religion, denomination, or vocation.<sup>41</sup>

Up until this point, we have discussed the object in terms of its use and meanings. It also can be considered in terms of its physicality and materiality:

*A Physical Expression of the Accompanying Prayer Cycle:* In Catholicism, the name "rosary" is actually the same as the name of the prayers that accompany its use. The design of the rosary, a circlet of beads attached to a pendant with a crucifix, is essentially a tactile map and visual diagram of the prayer cycle. Hence, its physical design is an indicator of its use and meaning.

*The Physical Qualities of the Object* include the size, weight, color, and texture of the beads, whether they are warm or cold to the touch, and how they sound when they are picked up and used. These are key aspects of one's aesthetic experience of the object. Prayer beads can be of plain wood or of precious jewels, simple or elaborate. The reasons for such variety can range from a genuine attempt to achieve an appropriate expression for a devotional object, to a choice that has more to do with social standing. Simple wooden beads can be an authentic expression of simplicity and humility, or a disingenuous outward expression of piety. A costly, bejeweled set of beads can be an entirely appropriate object for use in religious practice, or it can be a sign of wealth and social standing.<sup>42</sup> Thus, the appearance of prayer-beads can be diverse, variously interpreted, and used to express a broad range of values.

*Varieties of Manufacture:* Prayer-beads can be handmade from the simplest of materials or batch-produced in larger numbers by local artisans. They also are commonly made by mass-production processes. How it is made, what it is made from, and where it is made may have a bearing on the value ascribed to it by its owner. However, a cheap, mass-produced set of beads can be as precious to its owner as a set made from rare and expensive materials. Moreover, prayer-beads often include an emblem identifying the place it was purchased, such as a pilgrimage site. This adds a souvenir quality to it, but also a particular sacred association.

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41 Wilkins, *The Rose-Garden Game: The Symbolic Background to the European Prayer-Beads*, 50 and 179.

42 *Ibid.*, 49.



From this brief overview, it is apparent that there are a wide range of meanings associated with this object. They span the utilitarian, the deeply reflective and contemplative, the talismanic, the emblematic, and the decorative. It also can serve as a touchstone of values and an indicator of social status. For these reasons, this object can acquire an exceptionally intense and highly personal quality of “possession-ness.” It is an object that one tends to really “own” in a very intimate way,<sup>43</sup> regardless of the fact that it may have cost very little and be made from mass-produced plastics.

There are two more aspects of prayer-beads that are important to bear in mind when considering the relationship between sustainability and the design of material objects:

*Evolution over Time:* Neither the “prayer-beads” as an artifact, nor the cycle of sayings that accompanies its use were “designed” as such. Rather, both evolved over a long period into the forms we see today. These forms are the result of both popular (or bottom-up) practices and institutional (or top-down) approval and modification.<sup>44</sup>

*Evolution among Different Traditions:* The different forms of prayer-beads around the world demonstrate that it is an object that is easily adaptable to diverse cultures and traditions, which then make it their own through modifying the design and, in the process, it becomes a symbol of both belief and identity. Hence, its flexibility allows it to become acculturated, and this contributes to its continued but diverse use and meaning.

### **Object Lessons for Sustainability**

In this paper, we have looked at various types of enduring objects, and categorized and discussed them in terms of human needs and values. One object in particular, the prayer-beads, has been discussed in more detail as an important example that spans the various categories that have been introduced. We now can examine the lessons this object might hold for sustainable product design, bearing in mind that we cannot necessarily draw any firm, generally applicable, conclusions from the specific characteristics of one object. Nevertheless, from the above discussion, we can make the following observations:

*The Physical and the Meaningful:* It seems that a very powerful sense of personal possession-ness can be attributed to an artifact in which there are strong, interwoven relationships between physical object, physical activity, tactility, visual understanding, aesthetic experience, meaning, inner growth, and allusions to the numinous. The object discussed here is fundamentally profound in its conception as a thing, and this is articulated through its physical design, its use, and its meaning to its owner. It is a deeply evocative artifact that is neither trivial nor trendy, nor is

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43 *Ibid.*, 26, 29–30, 48.

44 Apostolic Letter, *Rosarium Virginis*, 19.

it based on transient technological novelty or styling. For these reasons, it is not susceptible to many of the factors that render so many contemporary products short-lived and unsustainable.

*The Heart of Sustainability:* It is an object that relates to a broadly acknowledged set of human understandings that are independent of culture, religion, language, or era—what Leibniz called the *philosophia perennis*,<sup>45</sup> and Lewis referred to as the *evangelium eternum*.<sup>46</sup> This undoubtedly contributes to its enduring and widespread use. However, one could say the same thing about a ceramic pot. So what is it that distinguishes one enduring artifact from another, and makes it such an intensely personal and precious possession?

Objects that have a wide range of characteristics and meanings, including the profound, greatly surpass those of basic, utilitarian goods, and this is what makes prayer-beads, and not pottery, so important in our understanding of sustainability. It is an artifact that has been conceived in response to our highest needs, which have been termed “self-actualization” and “transcendence,”<sup>47</sup> and which refer, respectively, to attaining one’s potential and relating to something beyond the ego.<sup>48</sup> In addition to these higher intentions, prayer-beads also reference other needs such as social standing and identity.<sup>49</sup> They also serve a basic function and have a variety of meanings related to popular culture, e.g., talisman. Thus, they can be understood, used, and acknowledged in many different ways.

*An Essentially Personal Object:* The intimate “personalness” of the ownership of this object is a rare, but very important, characteristic to bear in mind when considering the nature of sustainable objects. When we value an object in a deeply emotional and personal way, it becomes precious to us and worthy of our care.

*A Challenge to “Localization” and Its Link to Sustainability?*

There has been much discussion about the need for increased “localization” to contribute to sustainability in product design and manufacturing.<sup>50, 51</sup> However, to some extent at least, prayer-beads would appear to challenge this claim. It is certainly true that, in many parts of the world, this object is made at the local level from local materials such as plant seeds. However, it also is mass-produced from inexpensive, “anonymous,” unsymbolic material, and yet can still hold a profound meaning and a deeply intimate sense of “possession-ness” for its owner. This is because the locus of this sense of ownership is related more to what the object represents, or to that which it points, rather than to what it actually *is* in terms of its materials

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45 A. Huxley, *The Perennial Philosophy* (London: Triad Grafton Books, 1945), 9.

46 C. S. Lewis, *The Pilgrim's Regress* (Glasgow: Collins Sons and Co. Ltd, 1933, Fount Paperback edition, 1978), 171.

47 Postrel, “The Marginal Appeal of Aesthetics: Why Buy What You Don’t Need,” 36.

48 W. G. Huit, *Maslow's Hierarchy of Needs* (Valdosta, GA: Valdosta State University, Educational Psychology Interactive, 2003) available at: <http://chiron.valdosta.edu/whuitt/col/regsys/maslow/html> (February 10, 2004, 7:03 p.m.). Alternatively, <http://chiron.valdosta.edu>.

49 Wilkins, *The Rose-Garden Game: The Symbolic Background to the European Prayer-Beads*, 50.

50 S. Dresner, *The Principles of Sustainability* (London: Earthscan Publications Ltd., 2002), 161–4.

51 S. Van der Ryn and S. Cowan, *Ecological Design* (Washington: Island Press, 1996), 57 and 65.

or mode of manufacture. Any detrimental reaction due to its cheap, ubiquitous “thingness” is overcome by its iconic associations, so that it can still be a deeply meaningful and intimate personal possession. This is, perhaps, the most important lesson for sustainability. The *meaning* of an object, even of a newly manufactured, mass-produced, plastic object, can provide a deep sense of ownership and value, and can eclipse the specific physical characteristics and any physical shortcomings of the object.

From this it seems reasonable to draw a further conclusion. At its most basic, utilitarian, “undesigned” level, we could say that a functional object is capable of fulfilling an identified human need. When we go beyond this basic utility and introduce “design” to give the product market appeal, then we start assigning to the product facets that will, ostensibly, satisfy a range of other human needs such as “a sense of belonging” and “self-esteem” needs. Objects designed to appeal to these needs (i.e., “functional, social/positional goods”) often are rapidly outdated and unsustainable. Beyond these “middle-level” needs, however, there are higher needs such as aesthetic and spiritual needs. Products conceived to refer to these can appeal to our highest potential and, in doing so, *the very factors that spur unsustainable practices in objects are overcome*. In the one example of prayer-beads at least, we have a product that is inherently sustainable, more than simply functional, and ubiquitous. This example demonstrates that this combination is possible to achieve. The challenge is to see if it is possible in more common, everyday products.

At this point, we may try to take a few steps beyond the example of prayer-beads, to include some less explicitly religious products that are, at least to some extent, simultaneously “functional,” “social/positional” and “inspirational/spiritual.” It is difficult to find such examples, and any selections inevitably will be subjective and perhaps contentious. However, they might include some of the work by Philippe Starck, such as his “Juicy Salif” lemon squeezer of 1990 for Alessi. This product may not be especially functional, and its prime role would appear to have become positional, but it also is a strikingly sculptural and perhaps inspirational design. Similarly, the designs of Daniel Weil, Ron Arad, and the Droog designers are not merely functional, nor are they simply a combination of function and social/positional characteristics. Their sculptural and aesthetic attributes tend to endow them with “inspirational/spiritual” qualities.

These examples perhaps are not ideal, their durability has yet to be tested, and, in some cases, it often is difficult to rise above their strong “positional” associations. However, they do provide some indication of direction. They combine the various product characteristics discussed above, and encapsulate meanings, beauty, and sculptural qualities that allow them to rise above the mundane.

## Conclusions

Many of our contemporary products go beyond basic utility, to include a multitude of technical features, along with styling and aesthetic considerations. The vast majority of these products are short-lived, unrepairable and, by any measure, unsustainable. Given this state of affairs, we are faced with the question: “Is it possible to have an object that is more than merely functional, but which also can be understood as sustainable, and if so, what would be the characteristics of such an object?”

This discussion has attempted to answer this question, and has shown that sustainable product design is not to be found simply in the physical definition of an object, in the types or scale of manufacturing, or even in the nuances of the design. It also suggests that sustainability does not necessarily *require* a return to local production, the use of natural materials or high-value materials, craft-processes, or even high-quality production. Instead, once basic utility is surpassed, we enter an area of design that deals with the social and positional aspects of material culture, and it is this area, when added to function, that appears to stimulate consumerism, disposable products, and unsustainable practices. Furthermore, beyond the “social/positional” lies another area of human understanding—the “inspirational/spiritual”—that seeks and brings higher meaning to our endeavors. When this level of understanding informs our material productions, the destructive tendencies within the “social/positional” can be overcome and lead to objects that are, in their fundamental conception, deeply meaningful. And it is only by attempting to make our material culture meaningful that we can hope to contribute to a sustainable future.