TimePeache: A Timekeeper for Today 2010 INBAR Products Ideas Competition

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ARCH 684_04: Competition Elective Andrea Wong December 01, 2010 TimePeace was designed for the International Bamboo and Rattan (INBAR) Product Ideas Competition which was launched on the occasion of the 2010 World Expo in Shanghai. The competition's goal was to "help drive green practices in cities around the world", thus responding to the theme of the expo, "Better City, Better Life"¹.

The rapid urbanization of the world, indicated by a shift from 30% urban in 1950 to over 60% projected for 2030², means that more and more of us are keeping a fast pace of life that inevitably leads to an obsession with time. There is therefore an indisputable correlation between the city and keeping time. We have thus decided to design TimePeace to offer a commentary on the current trend.

TimePeace is a timekeeper for today. Crafted from an untreated stalk of bamboo, its mechanism sits within the natural hollow of the stalk. By utilizing an earth battery kept potent by the humid soil of an embedded potted plant, this timepiece requires no additional sources of energy and essentially powers itself. If the plant lives, the timepiece runs. Life equals time. The time ring and cursor are deliberately vague in their indication of time, to argue for a 'slowing-down' of our contemporary lifestyles and encourage a greater admiration and appreciation for the natural world around us. It was important, for both the designers personally and in light of the competition's goals, that natural and sustainable means be integral to the proposal.

The act of keeping track of time is fundamental to humanity. One can be reminded of the tale of Robinson Crusoe, penned by Daniel Defoe in 1719. Stranded alone on an island off the coast of Venezuela for twenty-eight years, Crusoe felt the need to diligently keep a makeshift calendar by carving marks into wood until his rescue³. It can be assumed, then, that quantifying and qualifying of time gives weight to our lives.

This paper is interested in the ways the past have influenced our design. Throughout history, various means have been developed to track and measure time, with varying degrees of accuracy. This is horology.

However, quantifying time is not sufficient to understanding it. The temporal form must be discussed in context of different cultural concepts of time in order to qualify it. TimePeace is based on the eastern point-of-view of time, which is cyclical.

² Hodgson, Dennis. "The Urbanization of the World" in <u>So 11: General Sociology</u>. Fairfield University. Accessed 1 Nov. 2010. http://www.faculty.fairfield.edu/faculty/hodgson/Courses/so11/ population/urbanization.htm>.





Bamboo forest



TimePeace arrangement



Robinson Crusoe

^{1 &}quot;International Bamboo and Rattan Products Ideas Competition" in <u>International</u> <u>Network for Bamboo and Rattan</u>. INBAR. Accessed 1 Nov. 2010. http://www.inbar.int/show.asp?BoardID=98&NewsID=617>.

As one of the main features of TimePeace is its earth battery-operated mechanism, an overview of this old yet recently revived technology is helpful.

Finally, the contemporary clock has taken on a whole different meaning than in previous times. Designers the world over have tried to re-imagine the clock in their own ways. By looking at innovative examples, TimePeace can be contextualized and warranted as a relevant product for an ideas competition in the year 2010.

Time is usually defined as 'measured duration'. The first of these words suggests units in terms of which to make the measurements and instruments, such as clocks and watches, to do the measuring. The second word suggests a philosophical concept. Our sense of duration, together with our space perception, and our certainty of the existence of material objects around us, are among the most fundamental concepts of the human mind.⁴

Human civilization has had several different ways to measure or track time. The Babylonians' days began at sunrise while those of the Jews and Ancient Greeks began at sunset, and those of the Egyptians and Romans at midnight⁵. Our present way of quantifying time is thus based on the Egyptian-Roman model, which has also been influenced by the Babylonian-Greek method of dividing the day and night into twelve hours each⁶.

It is interesting to note that in all civilizations prior to the current one, the sun provided the basis for the clock⁷. However, because of the way the Earth makes its way around the sun, the equator is the only place where the sun can be used as an accurate indicator of time, while its effectiveness declines as we approach the poles⁸. Still, outside of the poles, it was possible to develop the sundial as the first indicator of time.

There is evidence that the sundial was in use as early as 2000BC in the valleys of the Tigris and the Euphrates⁹. Sundials are based on the very early observation that shadows cast change length and direction as the day progresses. In the fifth century BC, the Greek philosopher Herodotus said: "It was from the Babylonians that the Greeks learned concerning the pole, the gnomon, and the twelve parts of the day"¹⁰. In fact, the simplest sundial is composed of a rectangular horizontal base with dial lines drawn on it and a

- 4 Milham, Willis I. <u>Time & Timekeepers</u>. New York: The MacMillan Company, 1945. p.1.
- Milham, Willis I. <u>Time & Timekeepers</u>. New York: The MacMillan Company, 1945. p.9.
 ibidem, p.8.
- 7 Willsberger, Johann. <u>Clocks & Watches</u>. New York: The Dial Press, 1975. p.4.
- 8 ibidem, p.4.
- Milham, Willis I. <u>Time & Timekeepers</u>. New York: The MacMillan Company, 1945. p.31.
 ibidem, p.35.



TimePeace on windowsill



Sundial

fastened vertical rod, known as the gnomon that casts a measurable shadow on the base¹¹.

One of the oldest sundials still preserved in their original place is the one at the Chartres Cathedral, in France, which dates back to 1578¹². During the Middle Ages, sundials were fairly common and often elaborately carved and ornamented, fit for cathedrals and as gifts to kings¹³ which surely helped to influence the enviable status of the timepiece that still persists today.

Second to the sundial, the clepsydra, also known as the Greek water clock, was invented in the second century BC¹⁴. These two types of timekeepers are relevant to contextualizing TimePeace because similarly to our design, they utilize the earth's elements to function, without the need for additional sources of energy.

Water clocks, in general, function on variations of the simple principle of a vessel of water getting emptied by gravity into another vessel during a predictable and repeatable length of time.

Although water clocks are most often called by their Greek name clepsydra, the concept was widespread in many parts of the world, including China. When visiting the Drum Tower in Beijing, an operational replica water clock can be admired. It is a reproduction of the four bronze clocks that sat in the Drum Tower dating back to the Song Dynasty (960-1279 AD)¹⁵. They were each made up of four vessels that emptied water into one another at set intervals¹⁶. Historically, the Drum Tower was the time keeping centre for the entire city. Its bronze gong, mechanically connected to the water clocks, resonated far beyond the Tower.

In time, water clocks gained complexity by being combined with elaborate mechanisms of cogs and wheels to instigate periodical sounds¹⁷. Therefore, the water clock is the direct predecessor to the modern mechanical clock.

The first verifiable mechanical clock dates back to 1360. Henry De Vick was lodged in the tower of the Palais Royal in Paris while he worked for eight years on a gigantic clock for Charles V of France¹⁸. This was the first self-contained, weight-driven and mechanically controlled clock in the world. It



Sundial at Chartres Cathedral



Water clock at Drum Tower in Beijing



De Vick's clock at the Palais Royal

¹¹ Milham, Willis I. Time & Timekeepers. New York: The MacMillan Company, 1945. p.32-

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¹² ibidem, p. 39.

¹³ ibidem, p.38.

¹⁴ ibidem, p.48.

^{15 &}quot;The Drum and the Bell Tower" in <u>Beijing: Guide to China's Capital City</u>. China Internet Information Center. Accessed Nov. 1 2010. http://www.china.org.cn/english/features/beijing/31182. htm>.

¹⁶ ibidem

Milham, Willis I. <u>Time & Timekeepers</u>. New York: The MacMillan Company, 1945. p.53.
 ibidem, p.81.

had a precision level of not better than two hours a day, which was already an improvement on the clepsydra¹⁹.

Therefore, the tracking of time has progressed greatly over the course of human civilization. The sundial, clepsydra and weight-driven mechanical clock are important precedents to consider when attempting to situate TimePeace within the context of horology. Much like our design, these examples offer an almost forgotten take on the tracking of time: the use of renewable energies to index the perpetual passing of time.

Another one of our priorities for this competition was the incorporation of eastern traditions in the design. Being an exercise on bamboo, we felt it necessary to address the unique mythical and symbolic nature of the plant, as well as how it relates to the concept of time.

Time appears to be infinite. It continues to progress even when we do not watch it. Yet there are two ways to understand it. In western culture, time is usually qualified to be linear. This can be best illustrated by religion. The Christian tradition posits that a body will die, but that its soul will live on eternally. At conception, a life is born; time begins. After death, the line of time continues into the after-life.

The eastern world views time as cyclical. There is no beginning and no end, as all comes from the past and all will eventually become the future. Hindus, Buddhists and to a certain extent Shiite Muslims, believe in reincarnation. At death there is a rebirth and thus a new life to be lived.

The Chinese lunar calendar is typically illustrated as a wheel. The wheel is divided into twelve equal sections, characterized by different animals. The rat, the ox, the tiger, the rabbit, the dragon, the snake, the horse, the sheep, the monkey, the rooster, the dog and the boar combine to make up the twelve year cycle that has been running continuously since 2600BC²⁰. The legend says that Buddha, before his departure from Earth, summoned all the animals of the world but only these twelve came to bid him farewell. As a reward, he assigned a year to each of them²¹.

The circularity of the wheel and of cyclical time is invoked by the natural tubular shape of the bamboo plant. This, in addition to one of bamboo's most characterizing traits, its ability to grow exceptionally quickly, indicates to us an intimate relationship between the plant and time. It is primarily based on this reasoning that we decided to propose a time-keeping device constructed of bamboo for this products ideas competition.



Chinese calendar in a wheel



Circularity of bamboo

21 ibidem

Milham, Willis I. <u>Time & Timekeepers</u>. New York: The MacMillan Company, 1945. p.85.
 "Calendar" in <u>Chinese New Year</u>. Scotland Online Production. Accessed Nov. 1 2010.
 http://www.chinese.new-year.co.uk/calendar.htm>.

Also in eastern tradition where the bamboo plant is an important and widespread symbol as well as natural resource, it is associated to the creation and the persistence of life. Because bamboo typically lives a long life, it is for the Chinese a symbol of longevity and good fortune²². This symbolism has penetrated several other Asian cultures. The bamboo stem is believed to have given birth to humanity. In the Philippines, the myth is of the first man and woman to have emerged from a split stem of bamboo²³. Similarly, the Japanese tell the folktale of a princess from the moon that is borne from a stalk of shining bamboo²⁴.

INBAR launched this competition with the goal of raising awareness of the bamboo plant in the global community. The idea was to stimulate the bamboo economy by calling for the design of innovative and contemporary products that would exhibit the very many virtues of the plant.

Bamboo is actually a grass that grows like timber, and has structural properties similar to those of steel²⁵. While Europe and Antarctica are the only places in the world without indigenous bamboo plants, it has been successfully cultivated in Europe in such disparate regions as the Mediterranean and Arctic Norway²⁶. Bamboo is the world's fastest growing plant, behind only the giant oceanic kelp²⁷. Because new bamboo can sometimes grow several feet in a few hours, it is said that you can literally watch the plant grow²⁸. However, even if it grows at a prodigious speed, bamboo typically only flowers once in a hundred years, at which point it then dies²⁹.

But bamboo is interesting for much more than this: it is the most universally useful plant known to man. (...) Accepted as a mere fact of life or prized for aesthetic reasons, it touches daily existence at a thousand points which vary as widely as employment in literary metaphor and its use in the wall of houses. It serves the most mundane purposes, and the most refined. (...) Ubiquitous, it provides food, raw materials, shelter, even medicine for the greater part of the world's population.³⁰

Bamboo has also been used in a number of past inventions, achieving a bridging between eastern and western civilizations. Gramophone needles, filaments in Thomas Edison's first electrical lamps, pipes for church organs

- 23 ibidem 24 ibidem
- Meredith, Ted Jordan. <u>Timber Press Pocket Guide to Bamboos</u>. London: Timber Press, Inc., 2009. p.9.
- 26 ibidem
- 27 ibidem
- 28 ibidem
- Austin, Robert and Koichiro Ueda. <u>Bamboo</u>. New York: John Weatherhill, Inc.,1970. p.9.
 ibidem, p.9.



Creation myth



Flowering bamboo before death



Thomas Edison and the lightbulb

²² absurdzen. "Bamboo: myths and legends" in <u>Asian Form</u>. Asian Form. Accessed Nov. 1 2010. http://asianform.com/page.php?pid=41&title=Bamboo%3A+myths+and+legends>.

are but a few of these³¹. Artisans and builders appreciate that bamboo is flexible yet tough, light but very strong, can be split with ease but in one direction only, is pliant or rigid, able to be compressed and shaped, is straight, and blessed with great tensile strength³².

The omnipresence of bamboo in cultures such as China's has led to a strong mythical and symbolic worth. Growing quickly, straight, and in families, the bamboo plant also invokes powerful imagery and sets fertile ground for metaphors. In China, bamboo is one of four so-called 'noble plants' along with the orchid, the plum tree, and the chrysanthemum³³. As the 'Three Friends', bamboo combined with the plum tree and the pine tree, symbolize happiness and good fortune³⁴. All of these are routinely seen in Chinese paintings.

Thus, in its circularity, robustness, and symbolism, the bamboo plant brings about strong connotations of the eternity of time and the perpetuity of life. TimePeace, a timekeeper powered by a living plant, is therefore a direct product of all of these. We elected to use the bamboo in its natural form and state, in order to embrace its circular section and containing qualities. The time ring revolves infinitely around the stalk, just as the Chinese wheel of time cycles on. The stalk is also a container for the living plant that sustains the clock motor; it enables life to emerge just as in the ancient myths.

The earth battery, alluded to in previous sections, depends on a living plant's humid soil to supply power to TimePeace's clock motor. This is a clean energy source that is renewable and fits nicely in the theme of sustainability and better living put forward by the competition.

The concept is simple and can be explained as follows: (taken from our competition panels) "Besides sustaining plant growth, the earth is able to generate alternate forms of energy. The growing plant supplies green energy to the mechanical clock, establishing harmony between the natural cycles of growth and the artificial measure of time."

Firstly, a healthy plant relies on hydrated soil to live; this is the electrolyte solution. Secondly, copper and zinc rods are inserted into the humid soil; these are the electrodes. Then, the metals exchange electrons through the soil; they use the soil as a conductor. Wires connecting the metals to a motor transfer a continuous charge of approximately one volt. The motor then makes the chrome time ring turn. A rough reading of time can be made by evaluating how the time ring aligns with the cursor engraved in the bamboo stalk.

- 33 ibidem, p.21.
- 34 ibidem, p.21.



Traditional Chinese bamboo painting



TimePeace section showing earth battery

³¹ Austin, Robert and Koichiro Ueda. <u>Bamboo</u>. New York: John Weatherhill, Inc., 1970. p.11.

³² ibidem, p.13.

Scientifically, the earth battery's process is: "In the electrolyte solution, the copper releases one positively charged electron and the zinc loses two negatively charged electrons. If these negative electrons cannot go anywhere, the zinc plate will become so negatively charged, it will attract as many positively charged ions back so that the reaction will stop. The copper plate releases positively charged electrons and are attracted to the negative zinc electrons. When they meet, they neutralize each other. Because zinc is more reactive than copper, the whole process releases energy-about 1 joule of energy for every coulomb of charge that is moved; this is equivalent to about 1 volt. This voltage is related to the difference in reactivity between the two metals, so changing the metals and the electrolyte solution impacts the voltage produced." (from our competition panels)

Plants that would best suit such soil conditions include philodendron, variegated canna lily, zamioculcas zamifolia, nymph amaryllis, croton, pothos, African violet, bromeliad, aloe, spider plant, cyclamen and dieffenbachia. Species of bamboo that routinely grow at circumferences large enough to act as a container to these plants include bambusa bambos, the dedrocalamus family, and certain phyllostachys. The dedrocalamus gigantus stalk typically has a diameter of 300mm.

Fittingly, earth battery technology was first used by the inventor Alexander Bain in 1841 while he was developing the world's first electrical clock. In 1852, Bain himself wrote these words: "If we place a sheet of zinc and another of copper in the ground a little distance from each other, and a few feet deep, so that they are perfectly embedded in the moist soil, we have, by this simple arrangement, a source of electricity, and if the sheets of metal are about two square feet each we shall have amply sufficient to work a clock"³⁵.

Bain, who was also the inventor of the facsimile, conceived the electrical clock which utilized an electromagnetic pendulum kept going by electric current rather than springs and weights which were at that time the standard³⁶.

In light of the recent surge of interest in green and alternative energy source due to the looming environmental crisis, the earth battery or versions of it have gained popularity. To demonstrate the simplicity of the scientific concept behind it, there are several 'potato clocks' that are marketed to children seven years and up. These typically feature an LCD clock that runs on two potatoes, oranges, grapefruits or even cans of soda connected by wires, creating electromechanical cells from common commodities. These clocks sell for between ten and twenty dollars and are available from such popular retailers as amazon.com³⁷.

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³⁷ "PacSci Potato Clock" in Amazon. Amazon Inc. Accessed Nov. 1 2010. < http://www.



Potato clock

³⁵ "Biography of Alexander Bain" in Incredible-People. Incredible-People. Accessed Nov. 1 2010. <http://profiles.incredible-people.com/alexander-bain/>. ibidem

A very elegant and more 'adult' example of the application of this technology in high design is Marieke Staps's Soil Lamp. This product was showcased as part of the 2010 Why Design Now? National Design Triennial at the Cooper-Hewitt National Design Museum, in New York City. "Soil Lamp celebrates the transparency and simplicity of its process: the earth battery is housed in a clear bulbous base, with power carried along a thin conductor leading to a bare bulb."³⁸

In fact, it appears as though clocks have regained a bit of their status as whimsical objects worthy of the attention of the global design community. In a similar way that timekeepers were once paramount achievements of precise engineering and exacting craft fit for the adornment of monumental cathedrals and as gifts to monarchs, the clock is often today an item of luxury and fertile ground for design experiments. Evidence of this phenomenon can be seen almost daily on dezeen.com, a free-running blog about whatever is 'cool' and current in design. In fact, to further reinforce the observation that timekeepers have captured the global imagination, the website has launched its own online watch store. The Dezeen watchstore, as it is unimaginatively named, sells examples of exquisitely designed watches aimed at the envelopepushing designer crowd that tends toward the fetishization of objects.

One of the most delightful contemporary takes on the timekeeper is the Ink Calendar by Oscar Diaz. Published by dezeen.com in 2009, this calendar features ink that slowly drains from pots, spreading incrementally on paper and colouring the numbers of the date by capillary action. The process is slow and organic and visually illustrates the passing of time without the use of high-tech gadgets or the figurative "bells and whistles". This simple approach was influential to our conception of TimePeace.

Amusingly, Oscar Diaz, designer of Ink Calendar, also grasped onto the symbolism and imagery of the living plant and connected it with the passing of time. Utilizing once again the phenomenon of ink and capillary action, he has also designed a growing plant made of paper. Its stem grounded in an ink pot, the plant is slowly printed on the paper over time, as if it were actually growing. Just as in TimePeace, there is a direct relationship made between life and time.

Society's relationship to time has become intimate with the economy as capitalism dictates a high level of efficiency in production only possible with a close monitoring of how the hours of the day are spent. Technological advances have enabled levels of production and efficiency never before thought possible. Dating back from the beginning of last century at least, amazon.com/PACSCI-PacSci-Potato-Clock/dp/B000RZYCII>.

38 "Soil Lamp" in <u>National Design Triennial: Why Design Now?</u>. Smithsonian Cooper-Hewitt, National Design Museum. Accessed Nov. 1 2010. http://exhibitions.cooperhewitt.org/Why-Design-Now/project/soil-lamp>.



Marieke Stap's Soil Lamp



Oscar Diaz's Ink Calendar



Oscar Diaz's Ink Plants

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there has been a general obsession with speed—we have been desperately trying to beat the clock. However, it appears that there is starting to be a reaction toward the production-consumption society that we have grown to be accustomed to. The theme of the expo and of this competition, "Better City, Better Life", is an appeal to re-evaluate what we have learned to take for granted. A better life may be possible by taking the time to value our surroundings, by slowing down.

Two other examples of recent novel clock designs demonstrate both approaches to keeping time in this age. Firstly, there is the Progress Bar clock by Mintpass. Similar to the status bar that appears on a computer screen when waiting for a download to complete, this clock uses a coloured belt mechanism to indicate the progression of the hours of the day in damning precision. One of the main features of this clock is the option to attach reusable flags that ring an alarm when the progress bar crosses their threshold. This method allows for up to twenty-four separate alarms over the course of a day, which impressively surpasses the one or two daily alarms offered by traditional clocks. In several ways, this clock puts to light society's maniacal obsession with time. The user's busy schedule can be flagged by event, and at a glance, the number of hours remaining in the day can be read. This is an incontestable testament to modern hectic life.

In a complete opposite manner, South Korean designer Ji Young Shon has developed Shadow of Time. This is a wall clock that embraces a slow, vague and phenomenological approach to timekeeping. In lieu of rotating hands and numbers, this clock utilizes light beams to give an idea of the time. The intensity of the lights changes over the course of the day and night, as in the way of the sun. Brighter in the day, it becomes dimmer in the night. This is a device that embraces imprecision. Although it gives a good approximation of the time, this clock is rid of all maddening measurements. It is proposing that we slow down, and re-learn to appreciate such elementary natural phenomena as light and shadow. In a way, Shadow of Time is a hightech take on the sundial. It is in this vagueness that this clock influenced the design of TimePeace. The time ring does not have gradations finer than to the hour. We are advocating a more relaxed approach to timekeeping, leading to a better quality of life.

These are but a few examples of imaginative designer timekeepers of the last few years. Along with personal watches, they have elevated timepieces to objects of desire. Personal watches are statement objects, often the priciest article of a person's outfit for the day. In 2005, it was estimated that the timepiece industry was worth twelve billion euros³⁹. Since INBAR



Mintpass's Progress Bar clock



Ji Young Shon's Shadow of Time clock

³⁹ Fédération de l'horlogerie suisse. "Global Watch Production" in <u>World Tempus Encyclope-</u> <u>dia</u>. World Tempus. Accessed Nov. 1 2010. .

launched this products ideas competition to promote the use of bamboo in contemporary design, we thought it appropriate to propose a timekeeper that would simultaneously showcase green energy, bamboo's formidable natural properties and a relaxed attitude toward the tracking of time.

In brief, when attempting to ground TimePeace within precedential discourse, several areas must be examined. TimePeace, a perpetual time tracker based on cyclical and renewable energy, is a timekeeper for today that has benefited from the wisdom of the past.

The human race began to track time by utilizing natural resources such as the sun and water. The sundial was simple but effective and the clepsydra allowed for the invention of the modern mechanized clock. On these cues, TimePeace was developed as a simple, effective and clean way to measure time, utilizing another natural resource, soil.

The choice to design a timepiece for this products competition is apparent when considering the intimate links able to be drawn between the bamboo plant and time. For the occasion of this year's expo in Shanghai and in accordance with bamboo's monumental status in Chinese culture, it was deemed fitting to draw from China's traditions. Cyclical time, illustrated by the Chinese calendar in the shape of a wheel, is invoked by the roundness of bamboo. The plant's hundred-year lifespan renders it a symbol of longevity, another reference to time. One of bamboo's most defining features is its exceptional growth rate, which seems to defy the accepted relationship between nature and time. Myths establish connections between bamboo and the genesis of life, and thus TimePeace, in addition to being a timekeeper, also acts as a container for a living plant. In doing so, the design embraces the natural appearance and form of bamboo, respecting it for all that it is worth.

TimePeace's chief feature is its use of earth battery technology to power itself. In light of growing environmental consciousness, it is important nowadays to incorporate sustainable strategies in every new design that is put forward. Within the moist soil that maintains the life of a plant are copper and zinc plates that exchange electrons producing a harvestable charge. The charge is used to power the clock's motor, which in turn activates the time ring. The time can be read by judging the alignment of the numbers on the time ring with the cursor engraved in the bamboo stalk. The information is purposely imprecise, advocating a re-evaluation of the pace at which we live our modern lives.

Several novel timekeepers have surfaced in recent years that present alternative



ways to visualize and conceptualize the passing of time. This is crucial in today's age, as the pressures of productivity and growth have rendered time one of the powerful governors of our lives.

Just as the timepieces of yesteryear were objects of great admiration because of their engineering and ornamental achievements, it can be argued that there has been a kind of revival in the interest of timepieces in our current society. Clocks and other timekeepers have been the muses of countless designers, elevating these products to the height of contemporary covetable objects. We therefore found it appropriate to propose a clock for this products competition looking to promote the use of bamboo in high design.

Thus, TimePeace makes reference to elements of ancient horology, Chinese mythology, nineteenth century science and contemporary design. As a handsome household piece, it is a celebration of the elegant beauty and functionality of the great bamboo plant just as it is a tangible reminder of the role of nature in our lives. Through TimePeace's simplicity, the tandem of life and time works in harmony to encourage and support the optimistic agenda of "Better City, Better Life".



TimePeace on desk

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