

# THE INEFFICIENT HOUSE

2005 Shinkenchiku Residential Design Competition  
Theme: Action for Sustainability

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## THE **INEFFICIENT** HOUSE

Efficiency isn't the solution to the question of sustainability – it's the problem. So long as we are watching the clock, we subscribe to the ideas that drive technological innovation. Squeezing the most out of something, whether it is time, space, light, water, or whatever, makes us view that thing, ultimately, as a quantity.

The concept behind this dwelling is to allow space to once again dictate the pace at which we live, and to make us relearn to appreciate, to revalue, the qualities of the day to day, by prolonging the process of getting from A to B. In addressing the space between, we lead the inhabitant to re-examine the way that he lives. This is the most important thing architecture can offer to the quest of sustainability.

The theme for the 2005 Shinkenchi Residential Design Competition is 'Action for Sustainability.' The competition brief reminds us that the building sector consumes 30 to 50% of the earth's resources and energy. As such, the building sector bears a great responsibility to advance the cause of sustainability, and expectations are high that it can do so. Over the years we have seen the proliferation of 'green' buildings – buildings that are too often more successful in the marketing of green products and technology than actually reducing energy costs and consumption.

We approached this competition with a bit of skepticism and dismay about the direction of sustainable architecture. What can architects do better as designers without becoming building scientists and engineers? As architects we

are responsible for all these things but at what cost to design and the spaces we create?

Before we could begin, we acknowledged the root of the problems facing our environment – energy consumption and waste production. Sustainable strategies used in buildings today primarily involve reducing energy requirements and recycling wastes wherever possible. This has led to the creation of a new sector of the building industry aimed at developing products that are more efficient in their energy consumption and recycled content.

While these developments are greatly encouraging they are, in our opinion inconsequential in the long run unless we address the unsustainable lifestyles by which we live. Sustainability is not an issue facing the developing world where necessity is reality. In the developed world we consume endlessly because it is readily available. Increasing awareness of our limited resources is futile unless appreciation for these resources is embedded in the rituals of our daily lives. This is where architecture plays a role.

This year's competition was juried by two very different, high profile international architects. Reading over the jury's message in the competition brief we realized that both architects approached the issue of sustainability from polar views. Tadao Ando challenged us to take our ideas beyond the 'eco-houses' that have become the trademark of sustainable architecture today. Mr. Ando's architecture is deeply rooted in his education as a carpenter, a craftsman and in Japanese culture's strong connection to nature (i.e. Water Temple, Hyogo, Japan, 1991). Richard Rogers' architecture in contrast is about the building as a machine (i.e. Lloyd's Building, London, England, 1984). His work seeks to reveal the machines that drive the building. For Sir Rogers, the architectural expression of technology and environmental systems is in many ways a means of increasing awareness of environmental systems. As architects, we believe that our craft is in danger of being erased by technology. Technology has replaced the need for craft in our profession and it has become evident in the way we are designing and constructing buildings. The value of craftsmanship and quality is being lowered in favour of efficiency, productivity and quantity. Technology provides

results faster and cheaper but at what cost? Architecture has fallen victim to the pressures of modern technological society - fast track construction and short cycle expectancy. We build quickly at the expense of quality justifying ourselves by being able to build more as a result of lower costs. If architecture reflects the values of society we can confirm that we live in an era of mass consumption and disposability. This is the problem – we value quantity over quality.

The Slow Food movement was initiated in 1986 as a means of encouraging pleasurable eating and returning to a more natural pace of life - away from the artificial pace set by shopping mall food courts and fast food chains. The pace at which we live by no longer allows us to enjoy the little things in life. Everything is about efficiency – saving time – in the home, the workplace, commuting. Technology saves us time, time that should be spent enjoying life. Instead, we are simply doing more work and continuously raising a bar that is being dictated by technology itself. In 1989, New York based architects, Diller + Scofidio took the slow movement to architecture. They designed the Slow House, a weekend retreat on the Long Island waterfront for a Japanese art investor. The client simply wanted a house with a view where every moment would be about this view. Something that today we take for granted given all the technical performance expectations we demand from our homes.

Technology has allowed us to become more efficient. The building industry is always being pushed to deliver more in less time. Technological efficiency in managing energy, water and other resources simply saves the user money and leaves the door open for us to consume more. Unless this exaggerated idea of necessity in our lives is readjusted to fit our basic needs we will continue to abuse the resources that are provided us.

*In the modern world, the most dangerous form of determinism is the technological phenomenon. It is not a question of getting rid of it, but, by an act of freedom, of transcending it. How is this to be done? I do not yet know. That is why this book is an appeal to the individual's sense of responsibility. The first*

*step in the quest, the first act of freedom, is to become aware of the necessity. The very fact that man can see, measure, and analyze the determinisms that press on him mean that he can face them and, by so doing, act as a free man. If man were to say: "These are not necessities; I am free because of technique, or despite technique," this would prove that he is totally determined. However, by grasping the real nature of the technological phenomenon, and the extent to which it is robbing him of freedom, he confronts the blind mechanisms as a conscious being*

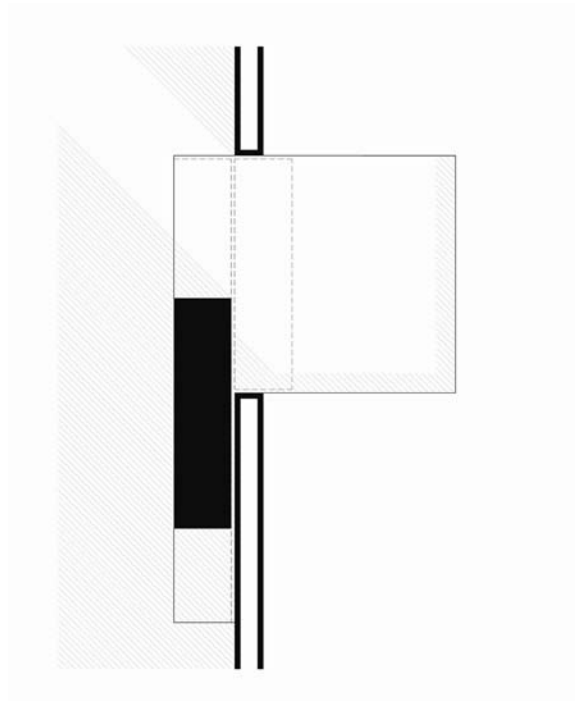
Jacques Ellul, a French sociologist and philosopher, wrote about a perceived takeover of humanity by technology in *The Technological Society* way back in 1954. He warns us of the consequences of man becoming dependent on machines. Perhaps it was Le Corbusier who first opened this Pandora's box when he declared that 'a house is a machine for living in.' While not quite the ocean liners that Corb had admired so dearly but in many ways the modern home of today has indeed become a machine for living in. Man initially invented machines and developed techniques to improve manual efficiency (i.e. manual egg beater, bicycle). The problem of sustainability began with the moment that man became subservient to the machines and technology that he had created. Today we live in homes where water, gas and energy magically appear and our wastes magically disappear. At the press of a button we control the temperature and humidity of our homes. Technology has made us lazy. We do not see the consequences of our actions and our senses have become dissociated from nature.

What we propose for this year's theme of 'Action for Sustainability' is a dwelling that is not about efficiency and saving time but about the pleasures of living and appreciating our fundamental needs. Architecture can reconnect us to our environment through the senses. We must re-learn to appreciate what we have lost through technology and the unending pursuit of increased efficiency.

The Inefficient House is a concept house where the architectural details

serve to heighten awareness about the daily rituals in the home that we take for granted. Through this we believe that architecture, and not technological innovation can instill in us a greater sense of responsibility for the consequences of our actions.

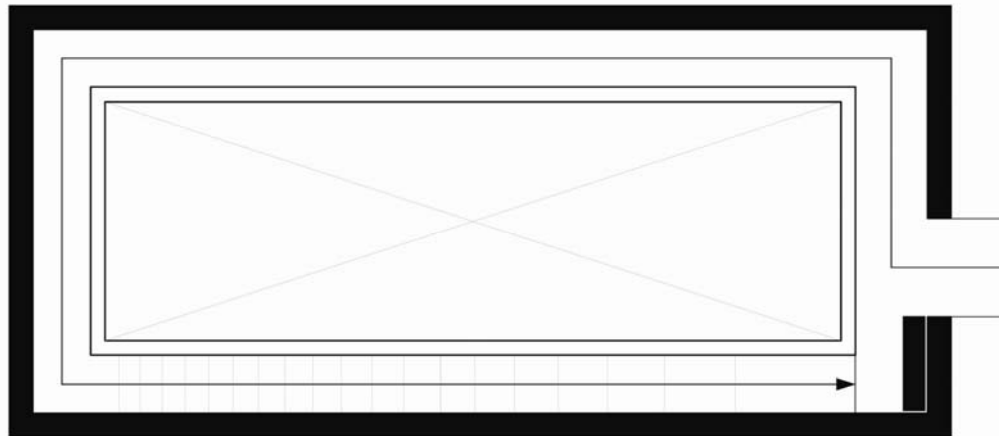
## THE HEAVY DOOR



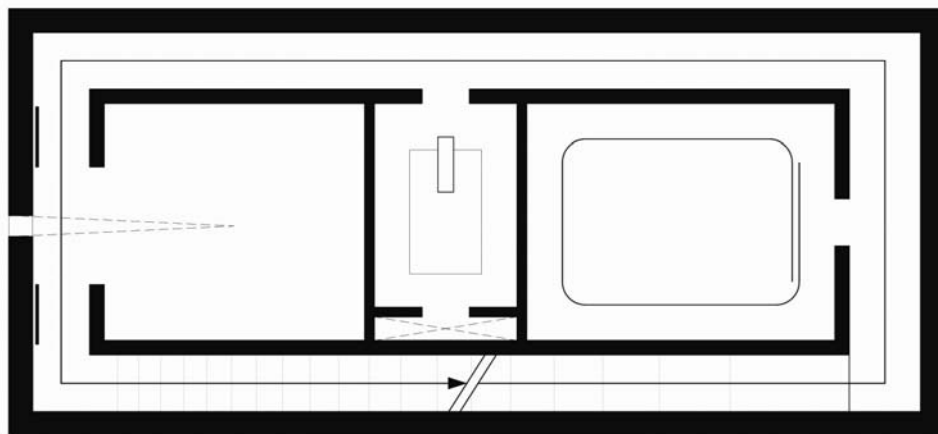
Entering and exiting one's home every day is significant. It signals the start of a new day when we leave for work in the morning and marks the end of a day when we come home for dinner and relaxation. This moment is often so rushed that a revolving front door might be more appropriate for some. We take for granted that every door is a machine – door knobs and hinges help facilitate the action of swinging a door open and closed. This action has become so mechanical that the experience of passing through the threshold between interior and exterior is no longer a meaningful experience. The Heavy Door is irrational in

its inefficiency but beautiful in prolonging the experience of entering and exiting one's home. A thick heavy stone door is pushed in and moved to the side by the palms of our hands. Applied force and movement is directly translated into work that slowly opens the door revealing the inside and outside to each other. It serves as a daily reminder when we are rushing home or to work that we are can take a minute to appreciate the moment.

### THE UNWINDING PATH



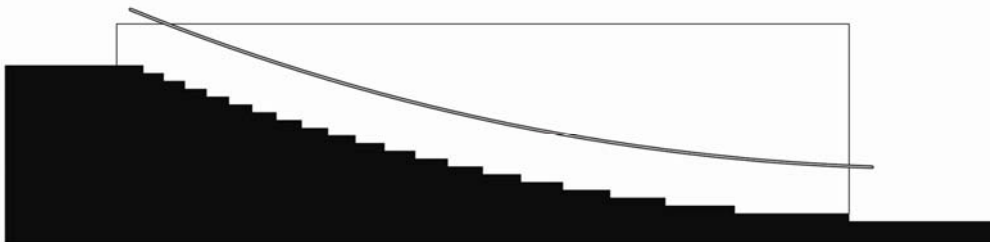
upper



lower

We scrutinize floor plans for their efficiency in layout. The front door leads into the living room. The stairs are immediately visible leading upstairs and downstairs. The kitchen and dining rooms are connected. Master bedroom is closest to the washroom. While we indeed appreciate the convenience of these efficient layouts, we seldom get to celebrate the path between point A and point B. Long corridors are notoriously dead space because they are seldom designed to be pleasant. The Unwinding Path takes you around the house allowing you to appreciate the space you are moving through and provides a moment of self observation everyday as you look down at your life below and the sky above.

## THE SLOW STAIR

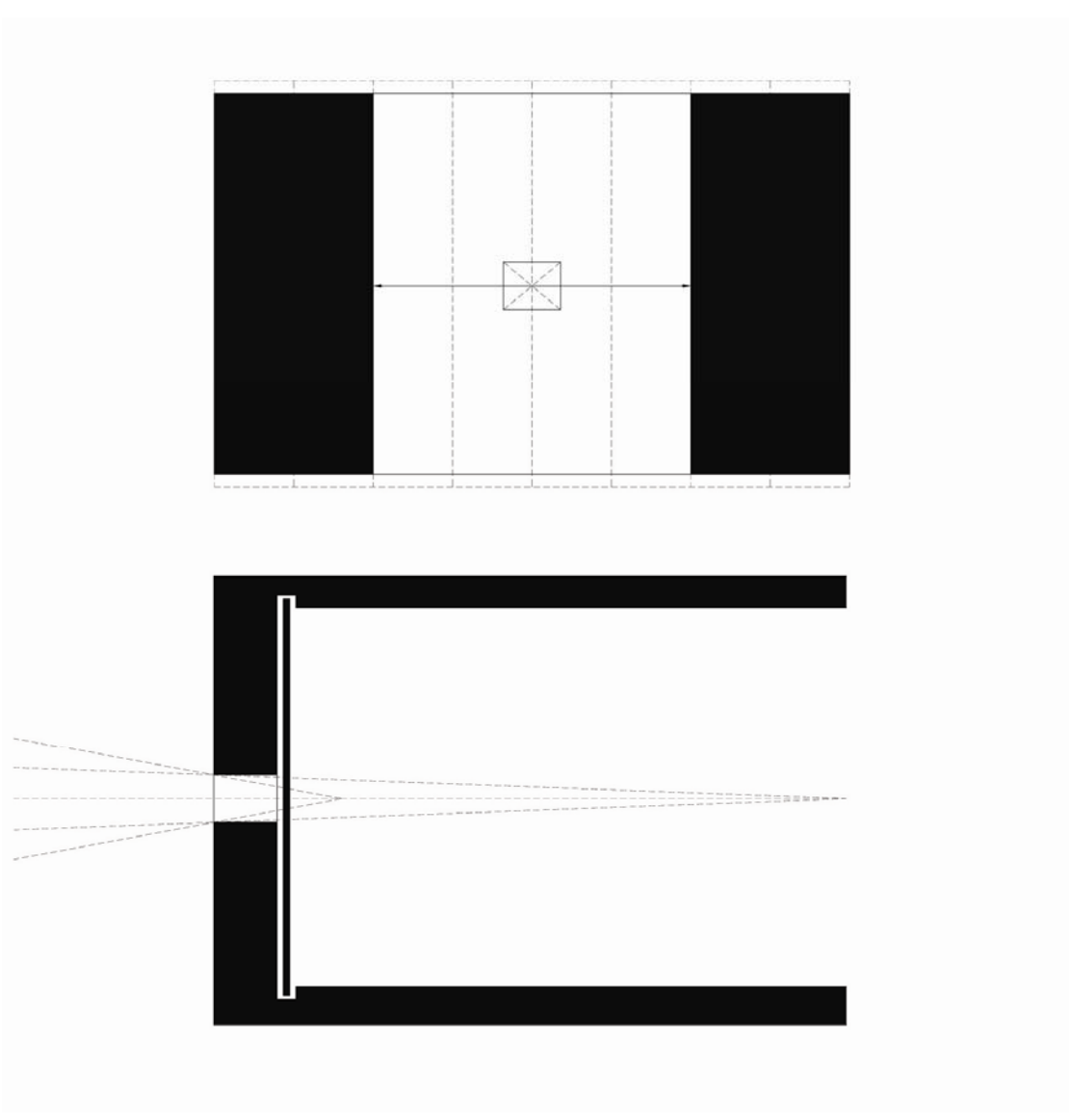


Stairs have long been an architectural element designed to be pleasurable. Stairs are functional in that they get you up and down from floor to floor in a building. Whether it is an escalator or a ramp, the experience of descending and ascending a long stair can be both contemplative and torturous. Depending on the riser and tread dimensions the pace at which we move up and down them is dictated. Steep stairs urge us to move faster and shallow stairs tell us to take our time. The Slow Stair adopts the exponential curve in profile to control our pace as we descend. Holding onto the long curving parallel handrail, the exponentially



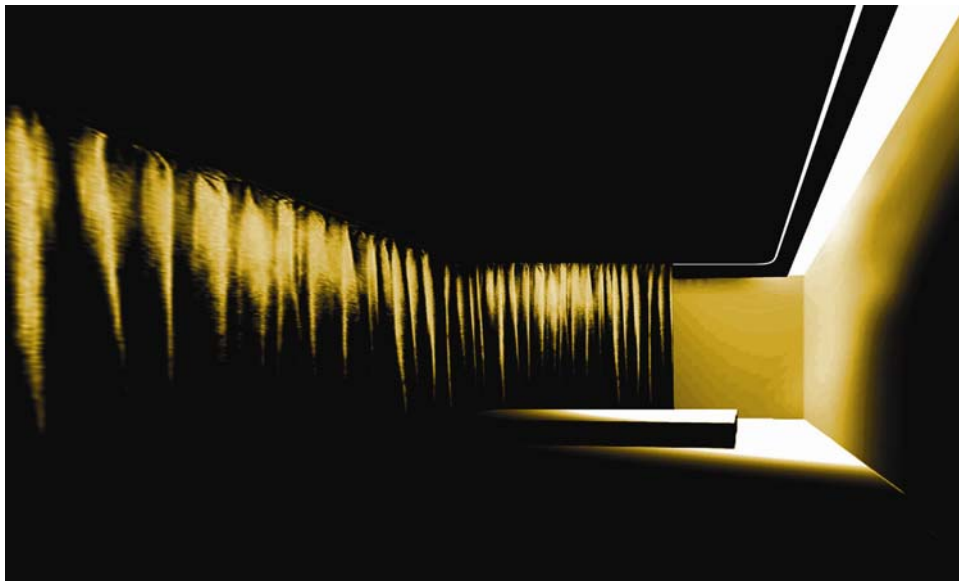
increasing width of the treads take us down the stair at a gradual slowing pace. The stair begins steeply and flattens out by the end. It is no longer only about the first and last steps but about the steps in between – what we experience along the way.

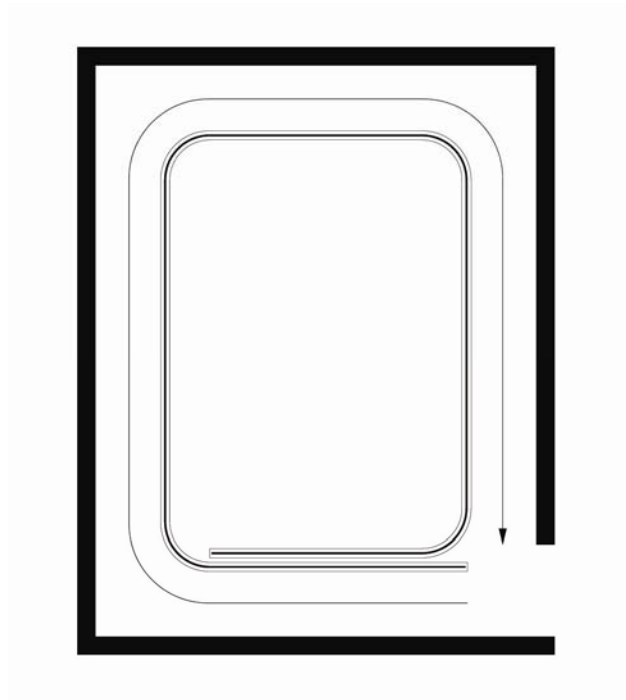
### ROOM WITH A VIEW



Every day we draw curtains that control the light that comes into our homes. We open our blinds in the morning to let light in and we close them at night to stop light from coming in. During the day we require blinds to mediate glare and heat gain as a result of late afternoon sun. It becomes a mechanical routine where the cardinal direction we are facing becomes more important than the view itself. Windows frame the outside world to us. While not every view can be an ocean horizon or a mountain top city view, the views we maintain through windows are what keep us psychologically connected to our exterior environment. The Room with a View is not about R-values, glazing percentage, solar heat gain, glare or general technical efficiency – it is about celebrating a view and the connection between outdoor and indoor spaces. Floor to ceiling blinds must be manually opened to reveal a small and deep window framing a beautiful view of the outside. By reversing and exaggerating the relation and scale of the blinds to the window we can begin to see and appreciate that there is beauty to be found in the irrational and inefficient.

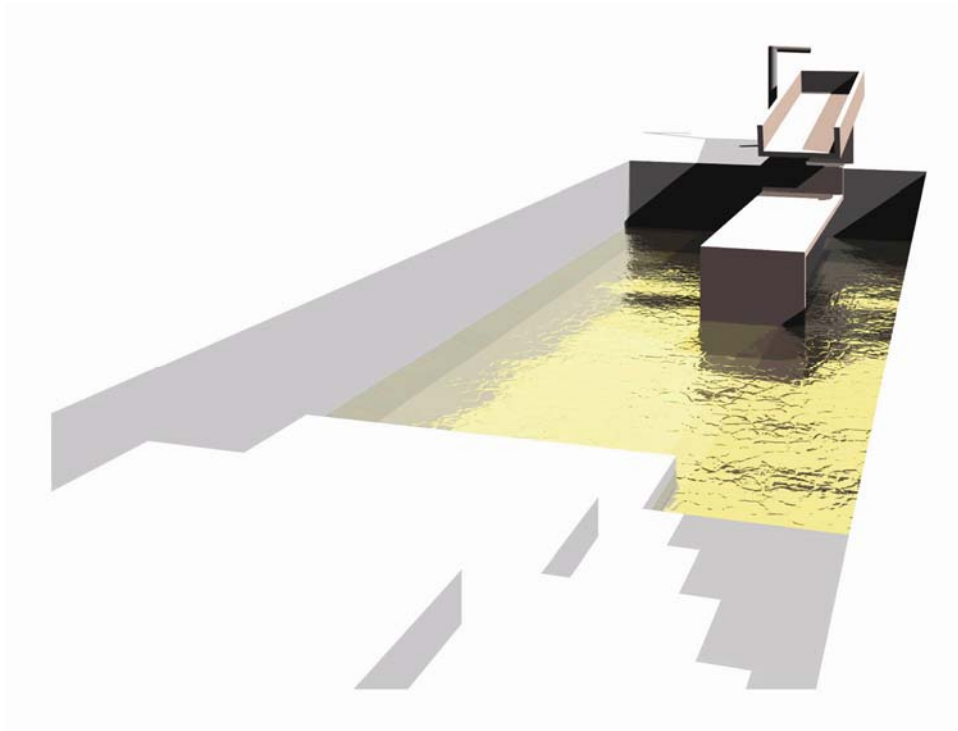
## WAKING





The harvesting of daylight is fundamental to many sustainable strategies including solar power, solar chimneys and green houses. These strategies work invisibly using the sun's rays to generate energy, ventilation and humidity through various mechanisms. But for the everyday person, sunlight is never experienced and appreciated in this scientific way. Rather sunlight is best experienced everyday at sunrise and sunset. It is something that we've come to take for granted in the morning when we flick open our curtains to let in a streak of morning sunlight signaling a new day. The Waking Room is a celebration of sunlight with the hope that through better appreciating of it we will also come to appreciate the value of artificial light that electricity has afforded us. The room itself is a window letting in sunlight from above. As the sun rises and sets every day, its rays are made tangible as they are caught by a curtain that wraps the perimeter of the room. The ritual of opening curtains is prolonged in The Waking Room by having to physically wrap and un-wrap a long continuous curtain around the room every morning and every night.

## WASHING



Clean water is quickly becoming a scarce commodity in many parts of the world. In the developed world we abuse this gift never thinking twice about the systems in place to ensure that every time we turn on a tap we get a limitless supply of cold and hot water. It is the magic by which clean water comes into our homes and dirty water is taken away that makes us forget how precious it is. The Washing Room is inspired by the Japanese bobbing water cranes that pump water in the countryside of Japan. Having to work to pump water out of the ground and watching it flow makes us appreciate its source and preciousness.

As water is pumped out it fills an adjustable basin scale that tips over once full. Water then flows down and fills the bath. The rhythm of the tipping scale tells us how much water is flowing into the bath. While the rate of tipping is adjustable to control water flow, The Washing Room simply serves as an example of how we can better appreciate water by prolonging our experience of it in daily life.

To sincerely address the heart of the problem of sustainability today we must acknowledge that the problem begins with our lifestyle. Technology is constantly raising the bar of efficiency. Humans by nature are inefficient beings. We hone skills to become more efficient at crafts but ever since the advent of the industrial assembly line we have become slaves of the clock and dependent on technological innovation for our efficiency.

With this never ending quest for efficiency comes a sacrifice – we have lost touch with our human sense of time. We must relearn to appreciate the things that give pleasure to the senses. We must revalue the qualities of the day to day things in our lives. Only then can we hope to appreciate and value the things that we today have taken for granted. Richness lies in the space between point A and point B. Efficiency is only concerned about getting us from point A to point B in the least amount of time. It is this myth of efficiency that has set the pace of our technological world. Perhaps it is naïve to believe that the world can somehow slow down. That we can actually use the time that is saved by technology to go out and appreciate the simple things in our natural world. It is our detachment from the pace of the natural world in favor of the pace of our technological world that is driving us to work and consume endlessly without concern for its consequences.

The value of The Inefficient House lies in the sum of its parts – not the whole. This design is not an attempt to devalue the developments and progress that have been made in the field of sustainable architecture. Rather, we are using architecture in its moments as a voice for our belief that great architecture itself has the capacity to inspire us to lead more sustainable lives. As architects, the most important thing we can offer to the quest of sustainability is to create

spaces that pleasure the senses and remind us of the value of being in touch with the natural world. Perhaps we are being overly idealistic; perhaps even naïve in thinking that architecture can slow down the pace of our lives in an increasingly technological world. Does sustainable architecture inspire sustainable living or must we first live more sustainably before we can reap the benefits of sustainable buildings?

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