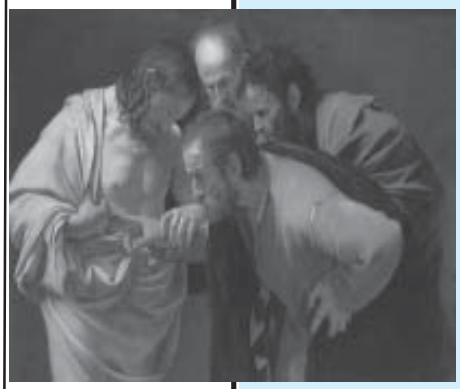
F.Y.I.

FOOD SERVICE PLANNING AND ENGINEERING
Wintertime 2004

HOPKINS FOODSERVICE SPECIALISTS, INC

The Inside Continuum

From the Milky Way to the atom, architecture is layer 7,096.3 [2.]



Doubting Thomas by Caravaggio1602-1603

11-week fetus by Lennart Nilsson

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Dear Associate,

I love winter! That's perplexing because I also love nature and being outside. But winter forces me inside to a calmer, less demanding place that promises more reading, people bonding, and rest. It is also a great time to write to you about the significance of inside space.

Having planned for a while to write to you about form and function, I was surprised and delighted to find myself in Arizona listening to a far more interesting perspective than I would've imagined. Hopefully, we will both benefit by this wonderful coincidence!

Entering Taliesen West was like walking through one of Frank Lloyd Wright's undersized doors into an interior world of nature. The transition from outside to inside was so subtle. I had always shied away from Wright because his notoriety is so big, so commercial. Much to my surprise Taliesen West revealed to me that he deserves his fame.

I hope more architects, maybe even you, will explore design more from the bountiful and vivacious inside out. I think this can make you famous too! But when you do get famous, don't forget us, who knew you when...

Please join me in welcoming Ellen Biancaniello to Hopkins! Ellen is our new Business Development Rep for the Greater New York Area. She can be reached by phone or e-mail at EBiancaniello@hopkins-fs.com. After knowing Ellen for years, we are very excited to be working together. Let's talk soon!

--Lynn Hopkins

Be an Inside Out Genius

FUNCTION, FORM AND FRANKENWONDER

FORMS FUNCTION

Louis Henri Sullivan was a great architect because he was among the first to reconcile the world of nature with science and technology. When most buildings sprawled his went skyward. To make such a radical shift upward, Sullivan studied the functions that occur within a space, and hence arrived at his famous maxim "form ever follows function," a crystallization of his innovative work.

At the height of Sullivan's career, into his Chicago office walked 18-year-old Frank Lloyd Wright applying for an apprentice job. This bright young man from Wisconsin soaked up the genius of Sullivan and his acoustical engineering partner, Dakmar Adler, and took concepts to the next steps.

By studying nature Wright noticed that form is actually one with function; in nature form is created from within outward. There is a reason that a flower's stem is long and narrow, the petals broad and colorful, the leaves reach out from a narrow attachment bringing in the light and water. Likewise, there should be a reason that the building is shaped as it is, and that reason should have everything to do with the reality within.

What's inside counts. Think about how much more we know about life from studying chemical elements and atomic particles. The inside of a building houses the fundamental reality, the raison d'etre for its form. A building should not be mere sculpture. The difference between sculpture and architecture is as geat as the difference between the first dimension and the third. It's the life force.

"You find out more about God from the Moral Law, [that man instinctively knows]" claims C. S. Lewis, " than from the universe in general just as you find out more about a man by listening to his conversation than by looking at a house he has built." Lewis claimed that human beings instinctively know God exists because their minds and hearts reflect His laws rather than the fact that the world is a very beautiful place. Again, it's inside information that matters most. .....Over

HOPKINS WORKS

with you and for you!

WORKPLACE
Einhorn Yaffee Prescott
Saint Elizabeth's Hospital
Moorhead Federal Bldg.
Gensler, Fox & Fowle, Renzo Piano (RPBW)
The New York Times
Holabird & Root
National Foreign Affairs Training Center
HNTB
National Defense Univ.
Kling
FDA - White Oak
AMGEN
PageSutherland Page
U.S. Embassy Phnom Penh
SmithGroup
EEOB
SOM
U.S. Embassy-Moscow
Zimmer Gunsul Frasca
U.S. Embassy Capetown

EDUCATION
Beyer Blinder Belle
General Theological Seminary
Gruzen Samton
NJ schools
Michael Graves Architect
St. Coletta School
MMM Design Group
Virginia Military Institute
Polshek Partnership
Frank Sinatra School
Rafael Vinoly Architect
Brooklyn College
STV
NJ schools

JUSTICE
Arrington Watkins/ HSMM
FBOP Tuscon
Thompson & Litton
3 SW regional jails

RECREATION
DBI
Military Project

ROOM FOR YOUR NEW PROJECT

ORGANIC ARCHITECTURE

Wright's vision of the unity of form and function he called Organic Architecture. Organic architecture, emulating nature, creates feeling, enhances function and has a sense of simplicity. For example, in one building at Taliesen West Wright wanted to create the feeling of being in a pond and looking up through the lily pads to the water's surface.

"Whether people are fully conscious of this or not," said Wright, "they actually derive countenance and sustenance from the atmosphere of the things they live in or with. They are rooted in them as a plant is in the soil in which it is planted." In a building all of the parts are related to each other and in turn related to the whole.

Frank Lloyd Wright intentionally made the entrances to his buildings small so one had to bow to enter the building, which would seem to grow after you went in; it was part of the experience of being in the interior space.

FUNCTION IMPROVEMENT

With the same enthusiasm and intellect, Wright applied his philosophy to his own work environments.

His studio was laid out to unite all workers. The newest intern was seated at the edge of Wright's desk. Instead of taking years to be able to speak with the senior designer, novices gained immediate daily access to get good habits established early. The drafting room was considered sacred space. No clients were allowed. No radios, no phones, no smoking, no idle talking.

Not long after *Architectural Record* proclaimed him all washed up at seventy, Wright took his family and a band of twenty-two apprentices on a cross-country journey to Arizona to build Taliesen West. The absence of a major highway system meant many hours of rough travel over rugged terrain between paved roads heading southwest. Once arrived, the entourage set up camp and lived in a primitive manner with no electricity or running water as they built their homes, offices, and studios. Working by hand, they had only four materials available-quartzite, concrete, redwood and canvas (later, glass). To get the water they needed to make concrete meant an 18-mile drive, followed by a 13-mile trek on foot to fetch and carry out pails by hand. Architects paid mightily to learn about Organic Architecture.

New apprentices had to work in the kitchen for the first six months making up to a hundred meals a day, seven days a week. They couldn't design a kitchen until they were completely familiar with its use. They would move the furniture around in the dining room regularly to change the traffic patterns and see what would happen to the dynamic of the room.

CREATIVITY

Frank Lloyd Wright's creativity seemed to know no limit. He attributed his success to giving himself a license to fail. Wright believed in finding answers by burying himself in the problem rather than by removing himself from the problem as most scientists do. His tireless efforts were rewarded with some great discoveries and inventions. According to the tour guide, they include:

- Lighting. Placed canvas over lamps, windows, and skylights to make light subtler, balancing the flow of the light; invented track, recessed, and soffit lighting.
- Acoustics. Benefitted from the destruction of the box; when no two surfaces are parallel, and no surfaces are smooth, there is no echo. The ceiling and floor should tunnel together.
- Structural engineering. Avoided avoided load-bearing interior walls and columns by hanging walls from trusses. The outer walls support the building so the inner walls can be simple partitions.
- Air flow. Wright designed the first air conditioned building in 1904, the Larkins Soap Manufacturing Building in New York, with associate, Willis Carrier. He used the Venturi effect to cool off the dining room in Arizona.
- The first free flowing floor plan, glazed brick, use of double panes.
- The first to create channels in walls to hide the electric wiring.
- Radiant heat and gravity heat, casement windows, the window-sill.
- Folding chairs, and running lights for theater aisles.

Wright hated columns. Once he needed to prove to the permit department that his structure which had a nine inch base, hollow on the inside and wide at the top, was strong enough to uphold the floors. He put 6 tons of sand on the structure, and the permit was denied. So he kept adding more sand, finally going to 32 tons before it collapsed. The permit was granted. The structure was one third the mass but five times stronger than a column.

PRODUCTIVITY

We in the over-fifty crowd should take heart from Frank Lloyd Wright. He was actually most productive in the last twenty years of his life, and most of his great works were competed in his last decade, from eighty-two to ninety-two years of age. When he died in 1959, one hundred projects were either on the boards or under construction, including the Greek Orthodox Church in Milwaukee, the Marin County Civic and Government Center, the Grady Gammage Memorial Auditorium at Arizona State University and many private residences. All told, he designed 1,141 works and completed 532 of them (409 still stand) for a 46-percent lifetime completion rate! Wright was over sixty years old when he designed the Guggenheim Museum and the corporate headquaters of Johnson Wax. According to this old man, youth is a "circumstance" and "young" is a quality.

OUR BREAKTHROUGH

Only five percent of architects actually have an opportunity to build a building of their own design. What made Frank Lloyd Wright soar above a sea of men and women in his field was his vision of the interior functionality of a space: the activity to be performed there should govern its size and shape. Most architects, whether living here or abroad, prefer to accept only a fragment of Wright's vision rather than the whole. Too many of us feel the pressure to animate the box rather than to destroy it. It's what's inside that matters most, especially in the kitchen, which as everyone knows, is the heart of any building.

Inside a tooth, inside a mouth.