==+{][Regulating Lines

How the influence of Le Corbusier (1887-1965) ((++is still alive in East Tennessee

By: Andrew Russell
Dr. O'Donnell, July 3, 2013
English 1010 - Essay 4

Andrew Russell is pursuing his undergraduate degree in Construction Engineering at East Tennessee State University. He has been working in the field of architecture and design for 7 years and plans on pursuing a Master's degree in architecture after graduation in December of 2013.

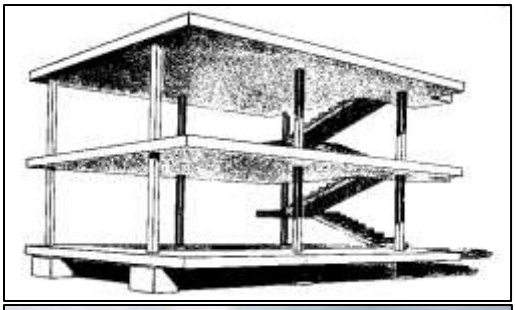
One evening while wandering through Barnes and Noble booksellers in Johnson City, TN, I stumbled across a book that consumed me within a matter of moments, "Towards A New Architecture" by Le Corbusier. Being fascinated with modern design, I could not pry my hands from the binding of this wonderful book. I was transfixed. This book included many different essays by one of the masters of architecture on learning from the past, urban planning, functional design, and mass production houses. It's difficult to believe that many of the ideas expressed in this text are still thriving even in East Tennessee, and one doesn't need to look far to find them.

Widely considered as one of the most influential architects of the 20th century, Le Corbusier has been credited with changing the face of urban architecture and bringing it into the technological age. Charles-Edouard Jeanneret-Gris (known later as Le Corbusier), was born in 1887 in the town of La Chaux de Fonds, Switzerland. Charles primarily trained as an artist when he was young, and travelled extensively through Germany and Western Europe. In 1907, Charles traveled to Paris, where he studied

under Auguste Perret , who was a pioneer in using reinforced concrete and steel. After a firsthand lesson from Perret, Charles then moved to Berlin (1910-1911) to study and work under Peter Behrens, who taught him about architecture, industrial processes, and machine design. This four-year period of study, although somewhat short, has been shown to have significantly influence Le Corbusier for the rest of his life.

During WW1, Charles went home to Switzerland, where he studied modern design techniques and developed his own theories of urban city planning. “The Domino House” is just one example of the type of designs he developed during this period. The house acquired the name “The Domino House” because it resembled the shape of a domino. The design consists of long spans of steel reinforced concrete supported by thin concrete pillars around the edges for support, with a stair at each end to connect the floors. Though never built, “The Domino House” became his study for the next 10 years. With this project, the “open floor plan” concept was born.

By 1917, WWI was over and Charles moved back to Paris where he developed Purism, a new concept of cubism painting (Oil on canvas). During this time, Charles adopted the name Le Corbusier (an altered form of his maternal grandfather's name, Lecorbésier) as a pseudonym. It was common for many artists during this time to adopt a pseudonym, as some still do today, such as Madonna and Pink. In 1923, Le Corbusier published his ideas in a book entitled, *Vers une Architecture*, (the original French text that later was translated into the English edition, *Towards A New Architecture*) in which he refers to the house as a “machine for living,” an industrial product that should include functional furniture or “equipment de l’habitation.” In this tone, Le Corbusier co-designed a series of furniture with his cousin, Pierre Jeanneret, and friend, Charlotte Perriand. “A Tubular steel frame furniture designed very simply that it projects a new rationalist aesthetic” that came to epitomize the International Style. This furniture is still produced today under license of Le Corbusier.



Le Corbusier – Rendering of "The Domino House" 1914-1915

Villa Savoye - Poissy, France
Most representative of Le Corbusier's "Domino House" studies 1929-1931

Le Corbusier developed what he called the 5 points of architecture as expressed in

Towards A New Architecture

1. **Pilotis (Pillars)** – The replacement of supporting walls by a grid of reinforced concrete columns that bears the load of the structure is the basis of the new aesthetic.
2. **Roof gardens** – The flat roof can be utilized more efficiently for a domestic purpose while protecting the concrete roof.
3. **The free design of the floor plan** – The absence of supporting walls means that the house is unrestrained in its internal usage.
4. **The free design of façade** – By separating the exterior of the building from its structural function the façade becomes free.
5. **The horizontal window** – The façade can be cut along its entire length to allow rooms to be lit equally.

"Modern life demands, and is waiting for, a new kind of plan, both for the house and the city," Le Corbusier wrote in "Towards A New Architecture" in 1923. He saw the house as a working machine and that it should suit many needs. Our homes should adapt to the way we live and not the other way around.

It is easy to see the influences of the international style all around today. Pre stressed concrete panels are used in all types of present day construction, not just for industrial complexes. Concrete wall

and floor systems have the capability to span up to 40 feet with nothing to support them in the middle and have become very cost effective. These concrete forms are designed and manufactured off site and can be transported and installed in a matter of days instead of weeks.

The Student Center on the campus of East Tennessee State University in Johnson City, TN (1976) and the College Center on the campus of Walter State Community College in Morristown, TN (1971) are somewhat of a derivative of the international style. Hard edges, using formed concrete with minimal exterior décor made its return in the 1970's. This reemergence was due to the influx of young architects that studied the previous generation's designs. Like mid-century modern in the 1950s, they wanted to make a statement with functionality and design. However, at times the reinvention of the international style did not have promise of being the timeless and incomparable design of its original master.

Jack E. Campbell College Center
Walters State Community College
Morristown, TN
Built in 1971

D.P. Culp Student Center
East Tennessee State University
Johnson City, TN
Built in 1976
250,000 sq. ft.

Other building practices that are more widely used in today's architecture and that were first pioneered by Le Corbusier are curtain walls. Curtain walls are the exterior facade of the building where the expansive glass is located and is free standing from the actual structure of the building itself. The curtain wall is attached by clips to each floor but does not carry any of the load of the building itself. It carries its own weight. A fitting example of this is the Sherrod Library on the campus of East Tennessee State University and the Bank of Tennessee Building in Johnson City TN with its rounded glass facade.

Sherrod Library
East Tennessee State University
Johnson City, TN
Build in 1998
151,400 sq. ft.

Bank of Tennessee Building
Johnson City, TN
Built in 2006
65,000 sq. ft.

Le Corbusier's contribution was more than simply an alteration to an already existing design. His approach to design was both purposeful and powerful. He took risks, he saw possibilities where others saw impossibilities, and he introduced the world to a completely new philosophy on practical and purposeful living.

Works Cited:

From the web:

Main Article: http://en.wikipedia.org/wiki/Le_Corbusier

Pictures: http://commons.wikimedia.org/wiki/Le_Corbusier

http://en.wikipedia.org/wiki/Le_Corbusier's_Five_Points_of_Architecture

Book:

Le Corbusier (Charles-Edouard Jeanneret-Gris), *Towards A New Architecture*, 13th French edition Translated by Fredrick Etchells and given an English introduction 1986, Publisher: Dover Publications, Mineola, NY 11501

Original French text 1923, Published 1931 London by John Rodker