“A good building is not one that hurts the landscape, but one which makes the landscape more beautiful than it was before the building was built.”

-Frank Lloyd Wright-
What is Organic Architecture?

According to Wright, it is simple, open space with natural light and furnishings that coordinated with the structure as a whole. The building should appear to grow from site and shaped as if nature had done so. The color and detail should be natural and must be sincere and filled with integrity.

Taliesin West, 1937

Norman Lykes House 1959
How to Design Organic Architecture

a) Integrate Usonian Style - Frank Lloyd Wright

--Usonian style follows these basic principles: one story, small (1500 SQFT or smaller), low simple roof, radiant heating in concrete slab floor, natural ornamentation, efficient use of space, open floor plan, local material use, and use of natural light.

b) Integrate Prairie Style - Frank Lloyd Wright

--Prairie style follows these basic principles: lengthy rows of windows for natural light, low roofs, centered around a chimney, and an open floor plan with minimized walls.

c) Use environmental friendly resources

--Use raw (wood, stone and glass) or re-purposed materials (steel, concrete, plastic, and organic waste) and implement them into the structure.
Usonian and Prairie Style Examples:

Usonian Style

Prairie Style
Environmental Friendly Resources:

If clean, renewable energy sources are used, they would strengthen organic architecture, because they are using nature as a friendly resource.

- Solar/Photo-voltaic
- Geothermal
- Hydro-power
- Wind
So Why Follow These Principles?

- 60 YEARS
  The buildings made are temporary and will only last 60 years.

- Cheaper materials and short cuts are taken.

- Built on small land plots which results in smaller rooms and areas within and out of structure.

- Harms the land with no harmonization with site and environment.

All these result in poor design and a decrease in preservation.
Positives to Organic Architecture

a) Increase natural wellness through open spaces and natural light
b) Increase water and material efficiency
c) Improve maintenance of the structures from environmental elements
d) Reduce natural resource use and fuel which then reduces threats to biodiversity
e) Can be economically efficient if a source of clean energy is used which then can lead to sustainability
f) Residents can have a high property value and tax benefits
g) Most buildings made to be sustainable are longer lasting (120 years)
There are Negatives too

a) The cost of organic architecture structures is more than other development sites due to special equipment needed for them to be maintained.

b) There are many other problems that are bigger to fix first than to redefine organic architecture (deforestation, ozone depletion, and pollution). There are things that organic architecture helps to reduce these things, but it isn’t enough.

c) Most renewable materials are not readily available than man-made construction materials (steel and concrete).

d) Organic architecture is becoming more of an interest however, there is not enough to push that interest over the edge to make significant gain.
In the world today, organic architecture is seen differently as it needs to be. In theory using some examples from the Cleveland, OH area and using Frank Lloyd Wright as a leading example, redefine and colonize organic architecture into today’s modern society in a positive, efficient and renewable way.

“So here I stand before you preaching organic architecture: declaring organic architecture to be the modern ideal...”

-Frank Lloyd Wright-
Where to Start? --- Cities!

Cleveland, OH
**Why Cities?**

a) Frank Lloyd Wright has already proven that organic architecture design can be achieved in residential buildings. Cities are more of a challenge, but can still be done.

b) Cities are the source in many areas of transportation, communication, and work. Their infrastructure connects to the surrounding areas and continues to expand as more smaller cities grow from the expansion.

c) Cities are looked at as icons or places of great wonder. If they were to be preserved in a traditional and sustainable way, they would prosper more.

d) Businesses thrive in cities and are all commercial. This means there are more options and concepts available when implementing organic architecture design into new and existing structures.
Why Cleveland?

Cleveland has been inducted as one of the many cities taking part in the circular economy model. The model demonstrates technical or biological materials that are reused, repaired, remanufactured or recycled, and occasionally are broken down by bacteria.

Through innovation, joint efforts and with the help of Sustainable Cleveland, the new Circular Cleveland movement will hope to advance and succeed in better environmental and community outcomes. These are heavily leaning on the health and sustainability of the city.
RENEWABLES FLOW MANAGEMENT

RENEWABLES

FINITE MATERIALS

STOCK MANAGEMENT

BIOSPHERE

REGENERATION

FARMING/COLLECTION\(^1\)

BIOCHEMICAL FEEDSTOCK

RENEWABLES

PARTS MANUFACTURER

PRODUCT MANUFACTURER

SERVICE PROVIDER

ANATOMY DIGESTION

EXTRACTION OF BIOCHEMICAL FEEDSTOCK\(^2\)

CASCADAS

CONSUMER

COLLECTION

USER

MINIMISE SYSTEMATIC LEAKAGE AND NEGATIVE EXTERNALITIES

COLLECTION

SHARE

REUSE/REMANUFACTURE

MAINTAIN/PROLONG

RECYCLE

ELLEN MACARTHUR FOUNDATION

1 Hunting and fishing
2 Can take both post-harvest and post-consumer waste as an input

SOURCE
Ellen MacArthur Foundation
Circular-economy systems diagram (February 2019)
www.ellenmacarthurfoundation.org
Drawing based on Braungart & McDonough, Cradle to Cradle (C2C)
Who is doing the work?
O.H.I.O Materials Marketplace

Located in Columbus, they specialize in partnering businesses and organizations together to find recycled and sustainable materials to be integrated into new construction projects. The wasted biological and technical materials are turned into ready-to-use raw materials.

Their Goals:

- Reduce pollution emission by leading companies to reusable materials.
- Assist companies in finding cheaper raw materials for their projects. In turn, this helps decrease the making of new materials.
- Using sustainable materials will reduce energy and water usage. It will even decrease land usage.
- This process of partnering and creating reusable raw materials creates more jobs and those companies with detailed info about materials in their region.
Rustbelt Reclamation

An organization based in Cleveland, OH that specializes in commercial and residential work all over the United States. They started 8 years ago converting abandoned buildings, tools and other materials into new and exciting usable furniture and decor. They use 100% of the materials.
Developments in Cleveland, OH
Sherwin Williams HQ (Office Space Example)

West side of Public Square
20 story office space
Developments in Cleveland, OH

nuCLEus (Retail Example)

Centered in the city
Serves as a connector to key elements
Vibrant network
Retail space
Developments in Cleveland, OH

Harbor Verandas Apartments (Apartment Example)

Next to Rock and Roll HoF
Next to Lake Erie
1,500 apartments planned
Community w/school, stores, and parks
Using the Cleveland examples, show what organic architecture could look like in a city. For this challenge to become reality, local construction materials would be reused and built into new structures, renewable energy would be implemented into the construction and the look and feel of the new structure must harmonize with the environment.

“We’ve been fighting from the beginning for organic architecture. That is, architecture where the whole is to the part as the part is the whole. And where the nature of materials, the nature of the entire performance becomes a necessity—architecture of democracy.”

-Frank Lloyd Wright-
Office Space Example
Stone is a sustainable resource that will keep the structure from falling for many years to come.

Guild Works. This is a sustainable material that controls light and temperature and works with the wind, just like a tree.

The building essentially acts like a tree. It grows within its environment, and the leaves are shown with the greenery on the balconies.
Retail Space Example
Retail Space with Attached Garage
(Bottom Floor)

3,830 SQFT  Scale: 3/16”=1’

- North Retail Entrance
- South Retail Entrance
- South Sidewalk
- North Checkout
- South Checkout
- Retail Floor
- Fitting Rooms
- Storage
- Parking Garage
Using managed sustainable wood, the building can look modern, but still harmonize with the environment.

Another way to harmonize with the environment is to use garden plants and others to bring a sense of greenery and liveliness.

To help with all that greenery there can be an irrigation system that not only can benefit exterior plants, but interior ones too.
Apartment Space Example
If a structure was by the lake, one could easily be accessible to hydro power. It would be a great way to harmonize with the area.

Drift wood is a common thing to wash up on shore. One could collect and use that to build structures or even other materials.

When by the lake, there is a lot of sand. One could use sandstone to save energy on other resources.
Thank you!

noahrpdesign@gmail.com

(440)-281-5682

noahrpdesign.myportfolio.com