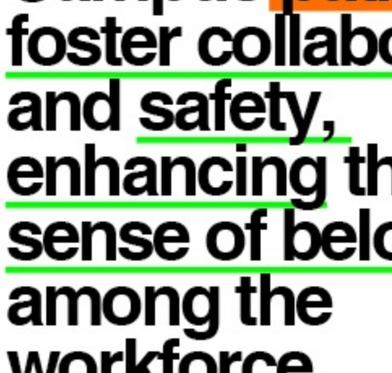
KEVIN LYNCH COGNATIVE APPROACH

pathways
edges
nodes
districts
landmarks

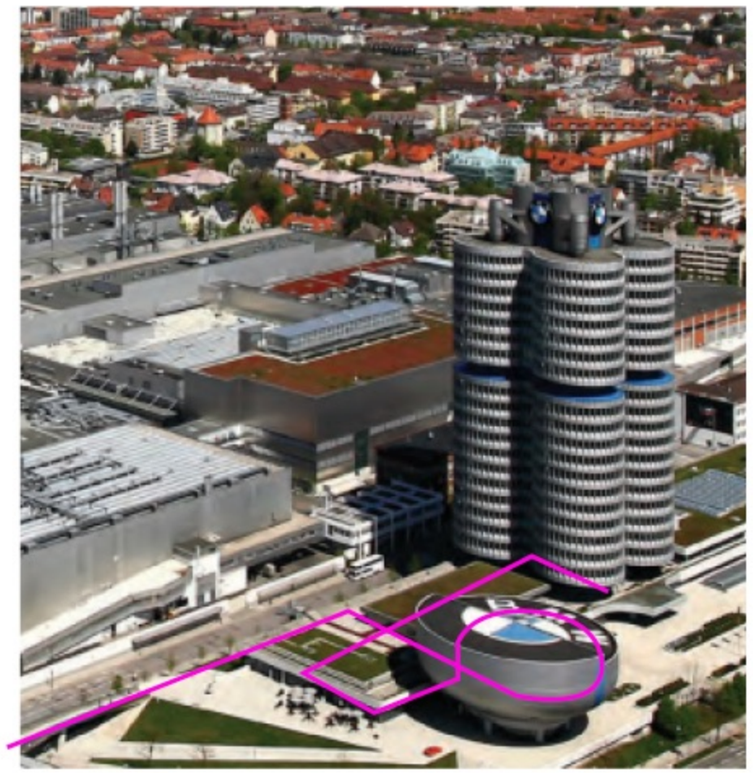
Campus pathways foster collaboration and safety, enhancing the sense of belonging among the workforce.

[Source: National Institute of Environmental Health Sciences]

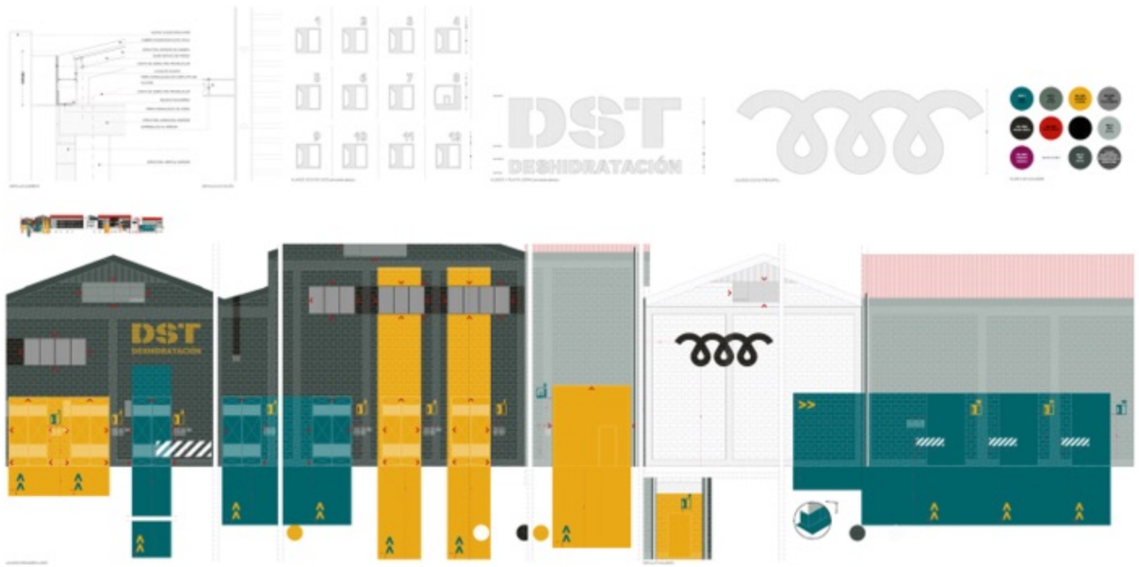


Location

Relationships



Clear edges on campus not only enhance focus but also serve as points of interaction, facilitating connections within the workforce.
[Source: Journal of Environmental Psychology]



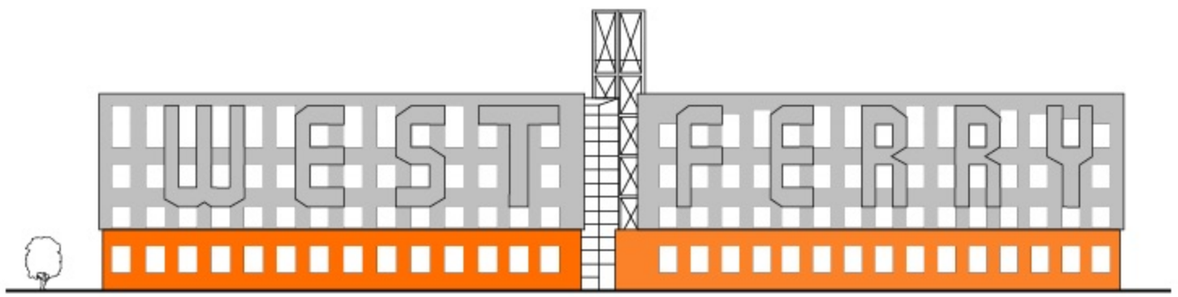
Villapérez Wastewater Treatment Plant,
Oviedo, Spain

Active nodes within the campus promote innovation and connectivity among the workforce, fostering a collaborative work culture.

[Source: American Journal of Public Health]

Cohesive districts with unique identities enhance community pride, social ties, and collective action.

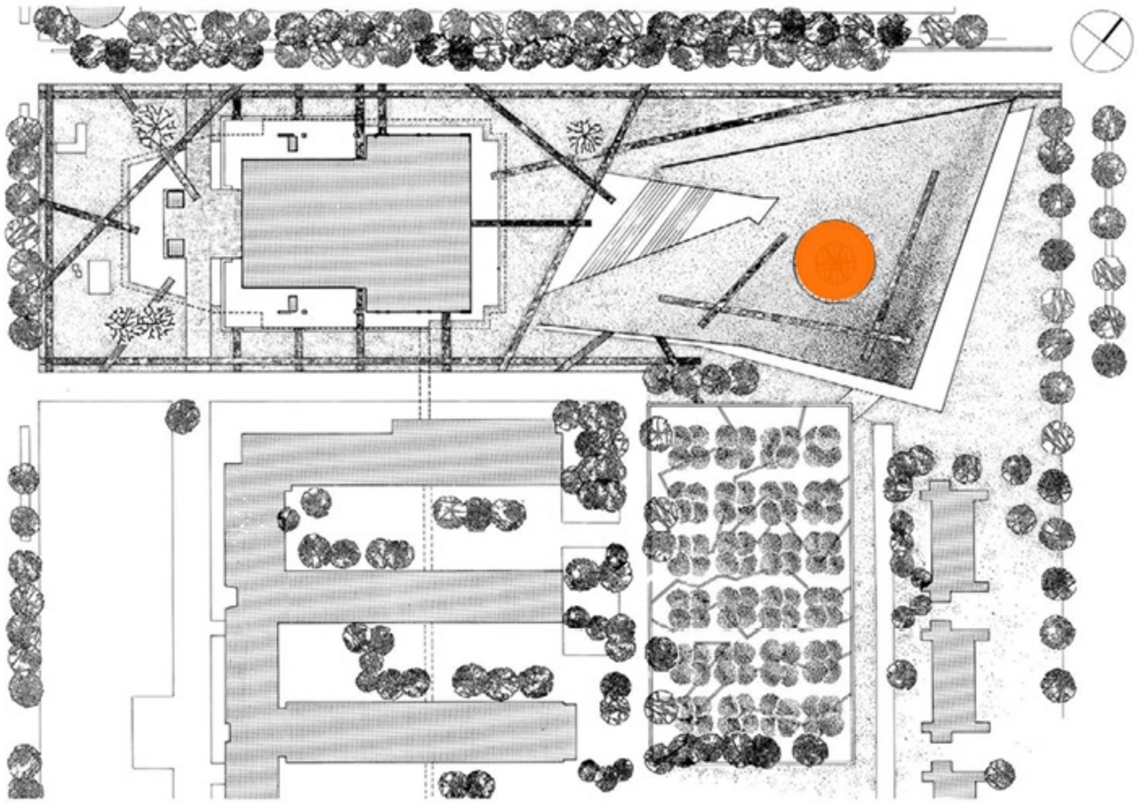
[Source: Journal of Urban Design]



Westferry Studios,
London, UK

Distinctive landmarks on campus contribute to a strong sense of identity and satisfaction among the workforce, reinforcing their connection to the workplace.

[Source: Journal of Planning Education and Research]



Evolution of Industries

Glass works, Midnight, Indiana, USA 1908. Photo by Lewis Hine, U.S. Library of Congress

1908

Hawthorn Farm, Hazardville, CT, USA 1917. Photo by Lewis Hine, U.S. Library of Congress

1917

Hamilton Watch Co., Lancaster, PA, USA 1936. Photo by Lewis Hine, U.S. Library of Congress

1936

Frankford Arsenal, Philadelphia, PA, USA 1940. Photo by Unknown, U.S. National Archives

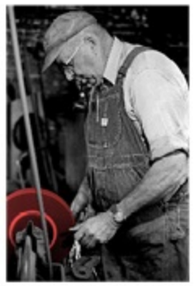
1940

Machine gun production, Flint, Michigan, USA 1942. Photo by Ann Rosener, U.S. Library of Congress

1942

Kumsung Radio Factory, South Korea 1962. Photo by Unknown, Korean National Archives

1962



Virginia-Pocahontas Coal Co., Richlands, VA, USA 1974. Photo by Jack Corn, U.S. National Archives

1974

Quill-winding operation, Jacquard-Weaving Mill, Paterson, NJ, USA 1994. Photo by Cooper Martha, U.S. Library of Congress

1994

Machinery Production, Wittenberg, Germany 1985. Photo by Wolfried Paetzold, German Federal Archive

1985

Sewing Factory, 2006. Photo by Maruf Rahman (CC)

2006

Food Factory, Brazil 2010. Photo courtesy of Nestle (CC by 2.0)

2010

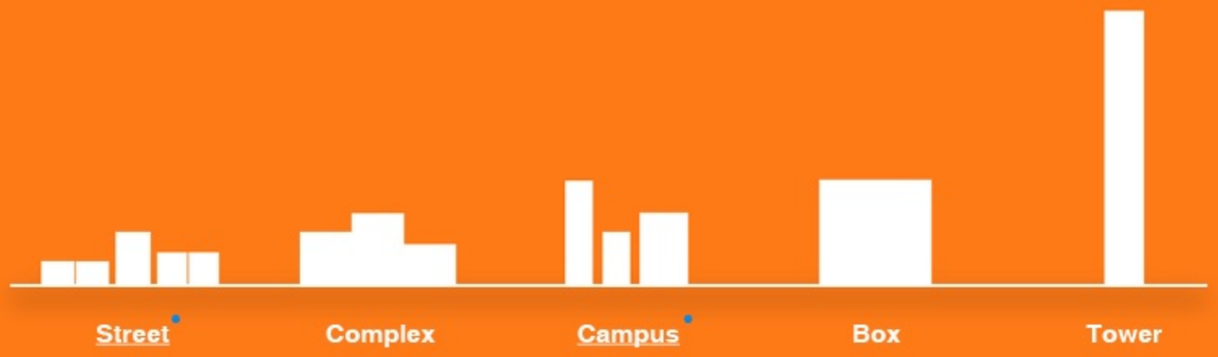
Clean room at NASA's Goddard Space Flight Center, 2015. Photo by Chris Gunn, NASA

2015

Human-Robot Collaboration, 2019. Photo courtesy of Universal Robots A/S

2019

Industrial Typologies



Street
A system of adjacent industrial/ workshop units along a street

Complex
A unit consisting of several buildings that share a common space

Campus
A system of buildings in a defined space.

Box
A big box with internal organizational flexibility.

Tower
A multi storey autonomous structure.

Industrial Type : Patterns, Order & Geography.

One of the significant transformations witnessed in the 20th century, profoundly impacting both urban living and production dynamics, was the decrease in automobile commuting and truck shipping costs, coupled with the subsidization of highway infrastructure. This led to a widespread horizontal expansion of industrial zones, resulting in significant implications.

The evolving industrial landscape became heterogeneous, consisting of three distinct spatial categories: " **integrated** ", " **adjacent** " and " **autonomous** ."
Each category influences urban life and economic demands differently, with some cities incorporating multiple types within their administrative boundaries. The adoption of specific types is often influenced by historical, cultural, political, and economic considerations.

Type		Structure	Land use
Autonomous	This type is characterized by large-scale zones occupied by uniform industrial buildings and surrounded by various physical boundaries.	**Unified**	**Zoning**
Adjacent	The organizational outline of the adjacent type is based on zoning and the separation between living and working.	**Parallel**	**Partial zoning**
Integrated	The key features of this type is symbiosis between living and working.	**Layered**	**Mixed**

Technology and people in a symbiotic environment

Industries exploring to what extent automation and augmentation of human labor will affect current employment numbers, but rather under what conditions the global labor market can be supported towards a **new equilibrium** in the division of labor between human workers, robots.

Implementable Fields

Synchronization allows diverse operations to function concurrently in the same space without interference, optimally sharing resources such as land, services, and infrastructure. This includes integrated living and office spaces, diverse mobility options, and more.
It's based on principles like efficient land use, integrating housing and work, reducing commutes, and maximizing use throughout the day. Overall, it's a new prototype emphasizing integration.

Creative

Recording studio, stage/ prop design, graphic design, glass blowing, fashion design

Production

3D printers, furniture rsetoration, shop/events display manufacture, medical prosthetics, VR Hardware and Software

Utility

Car repairs, car rental, upcycling, kitchen installations, building supplies

Distribution and Storage

Art storage, final mile logistics, parcel depot, food wholesalers, self-storage

The Roadblocks of Manufacturing: Charting a Path Forward

ECONOMY

Increasing global competition for investments and projects between cities and regions.

SOCIETY

Unemployment as a side effect of globalization and the transfer of production to developing countries

PLANNING

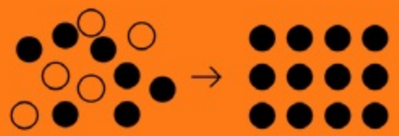
Demographic growth along with a trend toward rapid urbanization.

ENVIRONMENT

Changes in consumption and the cost of energy in the transportation of goods.

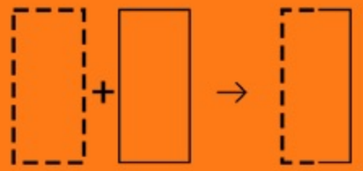
Scope of change through Design interventions

Strategies in Industrial Development



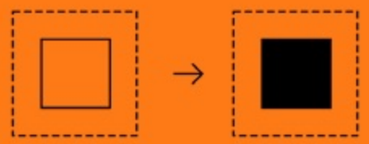
BALANCE

Focuses on regional development at under developed areas. Policies include local context requirements, tax relif, financial incentives.



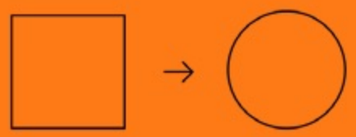
COLLABORATION

Focuses on regional innovations and stimulate growth. Policies include R&D investment, university-led R&D, entrepreneurship



SPECIALIZATION

Focuses on cluster development and make a place synonymous with an industry. Policies include Formation of trade associations; workforce development, marketing and branding, industrial ecology, eco-industrial parks



CONVERSION

Focuses on Industrial conversion by redeveloping disused industrial facilities and land. Policies include Tax relief, financial incentives.