LIBRARY AS…

Library as storehouse, as temple, as garden, as museum, as factory… Parallel to shifts in knowledge formats, information technologies, and modes of work and research, the library has aligned itself with various typologies that transform its role and identity. Largely operating symbolically, these metaphors have historically conveyed intentions relating to the library's architectural language and function as a civic and social institution. Our studio will consider these alternate typologies as productive analogies – rather than symbols or metaphors – as departure points for the design of the 21st Century library. Through the lens of the following typologies, can we radically reimagine the library (its environment, structure, study carrels, reading rooms, stacks, etc.):

- *as garden?*
- *as factory?*
- *as office?*
- *as plaza?*

To a large extent these typologies are already rooted in the myriad and diverse environments of past and contemporary libraries. How can they be critiqued and amplified? We will draw from paradigms of the above typologies as well as instances found within library precedents. What opportunities for reinvention arise from rigorously interrogating the experiential, operational, environmental and other dimensions of these alternate typologies? At the macro and micro scales, students are challenged to develop forms and concepts that take cues from their chosen alternate typology and result in a singular 21st Century library.

The public library has historically been an institution that makes information available to a public that may otherwise lack access. Yet today, the pervasive modes of information exchange question the primacy of this model. While we consume information from a massive diversity of sources, we also all produce and broadcast information like never before. Can the public library aid in this explosion of information exchange? While it continues to be a source of information, can it also be a receptor of information? Can we diversify the sources of information and directions of its flow? How do we define a public library for today and the foreseeable future which facilitates this information exchange? The investigation of this question will shape your public library.

While information can certainly be exchanged through books, you will consider other mediums of information exchange to incorporate into your library. Can various forms of art display and participation facilitate information exchange?   Is interpersonal communication a means of exchanging information? Does a green space or urban farm offer an opportunity to exchange? What are the programs and spaces which can enable this back and forth? Your public library will be a vehicle for the exchange of information in its many forms.

We will make extensive use of diagramming to develop and describe the program and the building. Flows of information, people & collections; vectors of structure, light & air; program spaces and their relationships to the context; and any other factors defining your project will be diagrammed. Your isolated diagrams will be continually developed through an iterative process provoked by the contamination of each to one another. This will culminate in an idealized and multilayered project diagram which will guide the development of your public library as it is elaborated and made constructible. The result will be a unique solution to the public library in the service of the public and suited to its context.

While you will have the flexibility to modify the given program to suit your developed project diagrams, we will take a highly structured approach to our organization and presentation of information. To start the semester, you will design a title block which will hold the various diagrams, drawings and images representing your project and its development. We will create a blog for the studio which will hold all of the artifacts of our project development and act as the primary vehicle for the communication of our designs.

Stella Betts, Critic   Andrea Chiney, Mentor
Columbia University Graduate School of Architecture Preservation and Planning
Arch 4102.01 / Core II
Spring 2017

Form Follows Photon
Library of Light and Shadow

photon
noun Physics
a particle representing a quantum of light or other electromagnetic radiation. A photon carries energy proportional to the radiation frequency but has zero rest mass.
ORIGIN early 20th cent.: from Greek phos, phot- 'light,' on the pattern of electron.

"Such is our way of thinking - we find beauty not in the thing itself but in the patterns of shadows, the light and the darkness, that one thing against another creates." [1]

Henri Labrouste, *Bibliotheque Nationnale*, 1875

This studio explores the current changing nature and cultural significance of the space of the public library through the lens of light and shadow.

The studio will ask the question - what qualities make space? We will study the site(s) for literacy, learning, training, sharing and gathering, focussing on the importance of the human experience and character of these spaces.

LIGHT Construction
How do we structure space? Does a space of light necessarily need to be constructed of light materials? Does darkness always come from heavy materials? How do our experiences and expectations of the quality of space influence the way that we think about structure and materials? What are the possibilities that transcend conventions?

Robert Irwin at Secession, 2013

Locale / Local LIGHT
"The purpose of the Heliotrope regulations is to guarantee access to sunlight and to a direct relationship to the sky, which is considered in all spaces of human use..." [2]

New York City, located 40.7127'N Latitude, is a dense city of buildings with different heights more often than not oriented off of a true North-South axis.

If we assume (for the purposes of this studio) that all public buildings (in this case a public library), have a *right to light* - a required minimum amount of light dictated by a presupposed and updated building code (similar to the *legal light and air* requirements for NY residential buildings), how would this change the city and its public buildings? What does it mean to design a building in the city that guarantees access to natural light? How might light and shadow, as an organizing principal, re-configure the contemporary library from the outside in and the inside out? And how does electric light play in to this equation?

Do Ho Suh, *Staircase*, 2011

Literacy, Learning + LIGHT
Throughout history, light has often been associated with knowledge. The Middle Ages were considered the *Dark Ages* in contrast to the *Age of the Enlightenment*.

The idea of a Library's central reading room as a place of study illuminated by natural light plays with this idea of light and knowledge. Controlling light and shadow has been important both for bringing natural and even light <u>in</u> to central reading rooms and individual reading carrels as well as mitigating the amount of light - keeping light <u>out</u> - to protect books from damage and deteriorization and reducing direct sunlight and glare.

What are the benefits, problems and challenges with bringing more light or more shadow into our Libraries? What spaces are more conducive to light and what are more conducive to darkness (shadow)?

Andy Warhol, *Shadows,* 1978-1979

Inside Outside
"There is a crack in everything. That's how the light gets in." [3]

Light and shadow, transparency, translucency and opacity are controlled by mediating the inside from the outside. How much light is allowed in and how much light is emitting out of buildings all depends on the envelope (walls, floors and ceilings) of the structure**.** Is the skin flat, shaped, single, double or triple layered? What are the sizes of the apertures and is the facade fixed or moving or some combination of both? How does a desire for more or less light impact the environmental performance of a building. What opportunities arise when trying to solve these problems?

And as libraries expand their program and outreach, and books become less of the central focus (but still important), what is the public face of our Public Libraries?

Organizing Principles
"As soon as new information enters a networked database, the structure of the database can reorganize itself, just like old songs change over time with changing audiences and changing social, political or cultural circumstances. Flexibility and instability have become technical qualities instead of problems to be controlled. Digital archives are unstable, plastic, living entities, as stories and rituals were in oral cultures." [4]

Thomas Heatherwick, *UK Pavillion*, 2010

As our digital databases evolve and are able to adapt to constantly changing and fluid organizational structures, traditional archiving of information and books is becoming more and more outdated. The Dewey Decimal System for classifying, storing and retrieving books has been replaced with book storage systems based on size, not subject. Storage and retrieval systems emphasize the efficiency of space when the human access to the books, the idea of browsing the aisles, is not important.

Similarly, perhaps, the programming and classification of the public library and place for reading and studying is also constantly evolving. Like when Labrouste was designing the Bibliotheque Sainte Genevieve as a new paradigm for the public library in Paris that was directed towards students by offering extended hours and a re-configured interior, libraries today are changing how they address the needs of their communities. Particularly in NYC, libraries are becoming more and more hybridized. The program of our public libraries go far beyond the traditional circulation of books and study. NYC public libraries now offer a breadth of various programs including adult literacy, after-school programs for teens and children, technology training and often include maker spaces and multi-purpose rooms to serve as community facilities to their local neighborhoods.

Toyo Ita, *Tama Art University Libarary*, 2004

This more diverse collection of program requires, perhaps, a greater diversity of spaces. And with the use and program of our libraries now constantly in flux, how does that change the way we design and organize the space of the library? What if the spaces of the library were organized less on program specificity and instead offered a variety of room types based on size, different qualities of light and shadow, greater or lesser amounts of acoustic privacy, etc?

Representation
Students will be strongly encouraged to explore different and varied methods of representation to include photography, video, collage, hand drawing and lots of model making!

References:
[1] Tanizaki, Jun'ichiro, *In Praise of Shadows* (Sedgewick, ME: Leete's Island Books,1977), 30.
[2] Michael Sorkin, *Local Code: The Constitution of a City at 42' N Latitude* (New York: Princeton Architectural Press, 1993), 27.
[3] Leonard Cohen, Lyrics from "*Anthem*," 1992.
[4] Brouwer, Joke and Mulder, Arjen, ed, *Information is Alive* (Rotterdam: Institute for Unstable Media: NAI Publishers, 2003), 5.
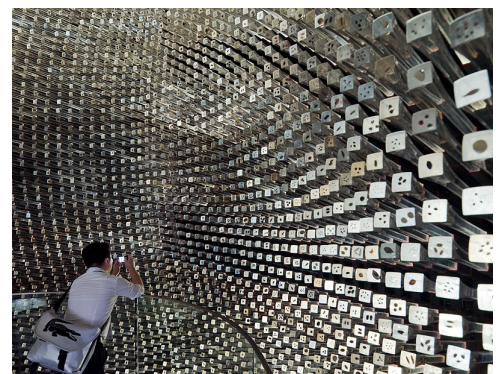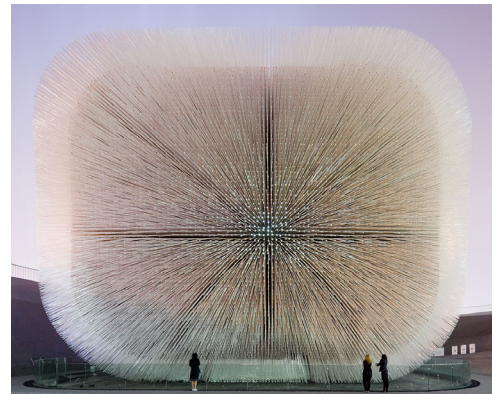
Louis Kahn, *Philips Exeter Academy Library*, 1971

SYNERGISTIC CIVIC SANCTUARY

The library is a space of research and reflection, inspiration and discovery. **A library in New York City is both an archive and a refuge.** With seemingly infinite information in our pockets, we seek spaces that facilitate sorting, prioritizing, and purposeful thinking, focused exploration of ideas and meaning, community and imagination. Perhaps now more than ever, the city needs sanctuaries, havens for thought and exploration, vibrant places of civic life, spaces where beautiful ideas are synthesized with complex human realities, and where the most intimate space of contemplation can be curated within a truly public domain of social communion.

A seemingly irregular fit induces critical negotiation and invention. Libraries in our section will be spaces engaging both the past and the future. The space of inquiry for tomorrow's world will contend with the complex balance of solitude and evolving interconnectedness. Conversations among synergistic programs, constituents, and the studio body will be formative. Whether holding a book, a tablet, or the gaze of a stranger... **the landscape will be an opportunity through which to reimagine urban possibility.**

Design is a generative and regenerative endeavor. Public buildings can contribute to and shape societal change. This engagement will require robust analysis and requalification of the library program and it's organization. Your library, as Civic Sanctuary, will celebrate public, intimate, and social functions within both the building and the site, ensuring a sacred space of focus and enabling immersion in a global community that aggregates across time. Specific interpretations of *sanctuary* will be defined and translated by each student. Like the Studio, the *library* should be active 24/7.

ETHOS

Studio culture is immeasurable. **The design studio is a space of curiosity, creativity, ingenuity and generosity.** The context in which we think affects what we think. The character of the studio, therefore, frames our relationship to opportunity, reflects what we value, and influences how passionately we learn and grow.

Architecture is about choice and consequence. Design requires focus and experimentation, analysis and calibration, imagination and vision. Spatial and material innovation develop in dialogue with the political, environmental, and shared complexities our time. The library you **design will engage an intricate and multi-scalar world, a diverse urban community, and the intimacy of the solitary individual.**

PROCESS

Design, as a practice, requires discipline and grace, curiosity and tenacity. Our studio is an intellectual space of intensely iterative exploration and inquiry. You will think, make and draw in equal measure, ideally simultaneously, and with open-ended determination.

Constraints facilitate productivity. We will explore matrices comprised of catalytic variables, iteratively negotiating ideas, aspirations, material, craft, structure, and cultural relevance – producing sometimes circuitous, but always-useful work. We will explore how systems of relationships inform structures of space and social interaction, how **complex phenomena emerge out of precise organizations**, and how strategic rules function to promote exploration and surpass perceived limits.

Conceptual and spatial relationships will be mapped and scrutinized to inform your design. Projects will resolve parameters of boundaries and organization, while engaging fluid public space and framing extraordinary experience. **The semester will be framed through a series of overlapping exercises**— analytical, abstract, theoretical, and spatial – rapid, episodic searches delineated by a critical and conceptual scaffold of your making, and toward the development of exceptional, and viscerally compelling space.

DISCOURSE

We take critical dialogue seriously. Our studio is a crucible of intense exploration and exchange. You will serve as both supporter and critic of your colleagues: broadening your mind with curiosity and productive contamination by the best of your peers, building more intelligence into your ideas, and supporting one another to **always be brave**.

Pin-ups will be frequent and lively, start on time, free of distracting devices, and be exuberantly engaged by all. Desk-crits will focus on tangible drawings and models produced. The Studio is courageous, self-motivated, and enjoys the challenge and satisfaction of the sometimes-difficult work that cultivates excellent design.

EXPECTATION

Architecture is precise. Our studio presumes a level of expertise—the possession, within each individual, of both technical capacities and unique abilities which can be exploited to awaken architectural innovation. Here, 'freedom' is understood as careful engagement with the contexts that inform your work, commitment to critical experimentation, and **rising to the highest fulfillment of potential**. Students are expected to work with rigor, dedication, productivity and respect: respect for radical ideas, innovative substance, prolific collaboration, and **exquisite creation**.

Emergent logics will guide diagnostic explorations**. Assertions will be supported by evidence within your work**. Effective proof will take compelling and relevant forms, and may require methods we have never before seen. Relationships between concept, theory and idea, and the physical exploration, production and performance of a project will be meticulously crafted. Arguments will be lucid. And like all decisions, color should be used with intention.

REFERENCES

In addition to the studio-wide Bibliography, some of the following suggested References / Resources may be useful to your research and the critical positioning of your work.

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http://foucault.info/documents/heteroTopia/foucault.heteroTopia.en.html

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Karla Rothstein is a practicing architect and adjunct Associate Professor teaching design studios at Columbia University's Graduate School of Architecture, Planning and Preservation. She is the founder and director of Columbia's trans-disciplinary DeathLAB and a member of the Columbia University *Seminar on Death*. Rothstein's areas of inquiry weave intimate spaces of urban life, death and memory with intersections of social justice, the environment, and civic infrastructure. She is also Design Director at LATENT Productions, the architecture, research, and development firm she co-founded with Salvatore Perry. In this role, she has gained a deep understanding of the political and practical aspects of realizing built work, and the importance of the societal and cultural levers that promote positive change within communities. In 2016, LATENT Productions and DeathLAB were awarded first place in the international "Future Cemetery" competition and DeathLAB's initiative was recognized as one of *New York Magazine*'s 47 'Reasons to Love New York.' Among other international publications, Rothstein's first single-family house is included in Kenneth Frampton's American Masterworks 2nd edition, *Rizzoli 2008*. LATENT is currently re-vivifying a 240,000 SF former cotton spinning mill campus in the Berkshires, building 25 units of affordable housing for home ownership in Brownsville, Brooklyn, and a meandering private urban oasis behind a faceted façade in Carroll Gardens. Rothstein is known to write in the margins of her books – sometimes profusely and almost always in ink.

http://www.latentnyc.com   http://www.deathlab.org   #gsappdeathlab   http://www.greylockworks.com   #greylockworks
http://magazine.columbia.edu/features/spring-2016/making-light-death,   http://www.npr.org/2014/12/13/370446879/avant-garde-afterlife-space-shortage-inspires-new-burial-ideas,   http://inhabitat.com/heres-what-the-environmentally-friendly-cemetery-of-the-future-could-look-like/,   http://nymag.com/daily/intelligencer/2016/12/reasons-to-love-new-york-2016.html#forty-three

Erica Goetz
GSAPP CORE II 2017
LONG SPAN, SHORT SPAN

Bibliotheque Sainte Genevieve, Henri Labrouste; Vennesla Library, Helen & Hard; Phillips Exeter Library, Louis Kahn

Even as heavy tomes shrink toward the infinitesimal, the library -- the great shrine to the written word, and perhaps the last bastion of truly *public* space -- remains culturally critical. Just as quickly as the physical components of what it stores are evolving, so too is the typology of the library. This tension between its longstanding stature and its potential to be digitally disrupted raises questions of the library's identity. On one hand, such a transformative program calls for a building that provides ultimate flexibility and adaptability, yet on the other hand, architecture must have the power to project, rather than react to, spaces that can *generate* new types of experiences.

This studio posits that the integration of structure, space and natural light, through the nuanced composition of long-span and short-span spaces, can create both specificity and flexibility. Through the organization of the library's multi-faceted and evolving program, we will create structural systems that provide for change while maintaining human-scale spaces that catalyze real interactions between people and the material world.

As the very modes of learning are changing, how can a library provide both long-term flexibility and accommodate a diverse array of users and spaces for various types of learning? If not vertical partitions or standardized column grids to define internal space, then how can structure be used to organize program?

LONG SPAN IS FREE. SHORT SPAN IS SPECIFIC.

Long-span structures have traditionally been associated with buildings that require programmatic flexibility and must accommodate large influxes of people. Their internal organization of space is often independent the from its vast spans and material enclosure. Although the free plan seems open with possibilities, the generic quality of indeterminate space can be devoid of specificity.

Short-span structures provide a counterpoint where space and structure correspond one-to-one or in modules thereof. They can be simple post-and-beam spatial bays defined by lineal members, or form-active where the flexibility of material responds to form, as in Bedouin tents, igloos and yurts. While specific and intimate in scale, short spans can become congested with redundancy and self-similarity.

LONG SPAN IS LIGHT. SHORT SPAN IS LIGHT.

The integration of structure, light and building systems can result in true innovation in infrastructure. Labrouste's Bibliotheque National and Bibliotheque Sainte-Genevieve was a technical achievement in terms of material ingenuity, structure and natural light with the invention of his integrated double-glass canopies and iron arches that spanned the great reading rooms. The very existence of the skylights enabled the arches and vice versa. Together, the proportions of space and the majestic quality of the top-lit room revealed a lightness and delicacy to the enormous vaults.

In our library designs, the control of natural light -- for the sake of books, archival materials, and screen-based activities -- will define programmatic spaces. The depth of structure can be employed to sculpt and control indirect light -- where structure is solid and light is void.

LONG SPAN IS COMMUNAL. SHORT SPAN IS INDIVIDUAL.

Long-span structural members are often custom-designed for material efficiency, yet they have the potential to create space in their depth, between members and in the hollow spaces of their cross sections. Short-span structures create space through efficiency of size and position of structural members and therefore preserve or define open space quite differently. How can a single system marry these types to invent spatial organizations that foster new programmatic possibilities for the library?

The earliest and greatest long-span buildings -- the Hagia Sofia, St. Peter's and the Pantheon -- were both welcoming to the public and awe-inspiring in their monumentality and technical prowess. The contemporary library is, at its best, no different. The power of Kahn's Phillips Exeter Library derives from the syncopation of mass, which was a question of structure for Kahn, and space, which was more ephemerally defined by natural light. "Structure, I believe, is the giver of light," he said. The great atrium space he designed was inspired by monastic libraries and manages to both evoke a sense of community, through the grandeur of the atrium space, and the individual pilgrim, nestled in the reading nooks within the structural walls. "A man with a book goes to the light. A library begins that way," Kahn said.

Our studio will study precedent libraries, contemporary spaces of learning as well as long-span structural typologies: space frames, trusses, arches and domes, cable structures and folded plates. We will design systems to house the current library program that includes books, data hubs and opportunities for deliberate and unexpected interactions between people and learning. These structures will consider growth and change, but they will also make specific connections to their communities and neighborhoods. Long-span/short-span buildings are both communal and individual, now and then.

ASSIGNMENT :

Jan 18–
Apr 20

_ LIBRARY FOR THE ILLITERATE

Architecture and Illiteracy.
Architecturaliteracy -

The Library for the Illiterate probes the fusion between [the current state of] evolution and literacy, to suggest a new role for architecture. The Library for the illiterate serves to reasses our collective, communicative, ecological and technological illiteracy by placing a priority on learning from literacy and transforming buildings and communities with architecture as a visual, experiential and virtual stimuli.

FOCUS and GOAL
>

The Library for the Illiterate is a space for books without words, where Architecture becomes the content without the story being about icons.
The plot for each member of this section is the investigation and research of 1 out of the following types of illiteracy:

+ Aspirational Illiteracy
+ Cultural Illiteracy
+ Digital Illiteracy
+ Emotional Illiteracy
+ Environmental Illiteracy
+ Financial Illiteracy
+ Health Illiteracy
+ Moral Illiteracy
+ Political Illiteracy
+ Sexual Illiteracy
+ Spatial Illiteracy
+ Spiritual Illiteracy
+ Technological Illiteracy

Libraries are generally for the literate—they focus on improving the literacy of users, rather than providing information in ways that are appropriate to users with low literacy.[1]

CONTEXT
>

Back in the fifteenth century, Leonardo da Vinci made the following remark about visual storytelling:

And you who wish to represent by words the form of man and all the aspects of his membrification, relinquish that idea. For the more minutely you describe the more you will confine the mind of the reader, and the more you will keep him from the knowledge of the thing described. And so it is necessary to draw and to describe.[2]

Functional illiteracy is reading and writing skills that are inadequate "to manage daily living and employment tasks that require reading skills beyond a basic level."[3]

il·lit·er·a·cy
i(l)ˈlidərəsē/
noun
noun: **illiteracy**; plural noun: **illiteracies**

1. the inability to read or write.
    "the ineffective educational system meant that illiteracy was widespread"

    + lack of knowledge in a particular subject; ignorance.
    "his economic illiteracy"

Objective:

> Investigate and research a type of illiteracy as a means to develop an architectural language of anti-illiteracy.

1 Deo, S. and D. M. Nichols and S. J. Cunningham and I. H. Witten and M. F. Trujillo,"Digital Library Access For Illiterate Users." In Proceedings of 2004 International Research Conference on Innovations in Information Technology, 2004.
2 Popova, Maria. "A Brief History of Children's Picture Books and the Art of Visual Storytelling." The Atlantic. February 24, 2012. Accessed January 7, 2016. http://www.theatlantic.com/entertainment/archive/2012/02/a-brief-history-of-childrens-picture-books-and-the-art-of-visual-storytelling/253570/.
3 Schlechty, Phillip C. Shaking up the Schoolhouse: How to Support and Sustain Educational Innovation. San Francisco: Jossey-Bass, 2001.

CONTEXT cont. > Functional illiteracy is contrasted with illiteracy in the strict sense, meaning the inability to read or write simple sentences in any language. Foreigners who cannot read and write in the native language of the place where they live may also be considered functionally illiterate.

In developed countries, the level of functional literacy of an individual is proportional to income level and inversely proportional to the risk of committing crime. For example, according to the National Center for Educational Statistics in the United States:

+ Over 60% of adults in the US prison system read at or below the fourth grade level
+ 85% of US juvenile inmates are functionally illiterate
+ 43% of adults at the lowest level of literacy lived below the poverty line, as opposed to 4% of those with the highest levels of literacy.[4]
+ Two-thirds of students who cannot read proficiently by the fourth grade will end up in jail or on welfare.
+ Three out of four individuals who receive food stamps read on the two lowest levels of literacy.
+ 16-to-19-year-old girls at the poverty line and below with below-average reading skills are 6 times more likely to have out-of-wedlock children than their more literate counterparts.[5]

A *The Triumph of Illusion and Spectacle: the Rise of Illiteracy in America*

B *Lascaux Cave Paintings, estimated 17,300 years old*

Excerpt Victor Marie Hugo's *Notre Dame de Paris*:

Our fair readers must forgive us if we halt a moment here and endeavour to unearth the idea hidden under the Archdeacon's enigmatical words:

 "This will destroy That. The Book will destroy the Edifice."

To our mind, this thought has two aspects. In the first place it was a view pertaining to the priest—it was the terror of the ecclesiastic before a new force—printing. It was the servant of the dim sanctuary scared and dazzled by the light that streamed from Gutenberg's press. It was the pulpit and the manuscript, the spoken and the written word quailing before the printed word—something of the stupefaction of the sparrow at beholding the Heavenly Host spread their six million wings. It was the cry of the prophet who already hears the far-off roar and tumult of emancipated humanity; who, gazing into the future, sees intelligence sapping the foundations of faith, opinion dethroning belief, the world shaking off the yoke of Rome; the prognostication of the philosopher who sees human thought volatilized by the press, evaporating out to the theocratic receiver; the terror of the besieged soldier gazing at the steel battering-ram and saying to himself, "The citadel must fall." It signified that one great power was to supplant another great power. It meant, The Printing-Press will destroy the Church.

4 "The Health Literacy of America's Adults" (PDF). United States Department of Education. 2006. Retrieved 23 February 2010.
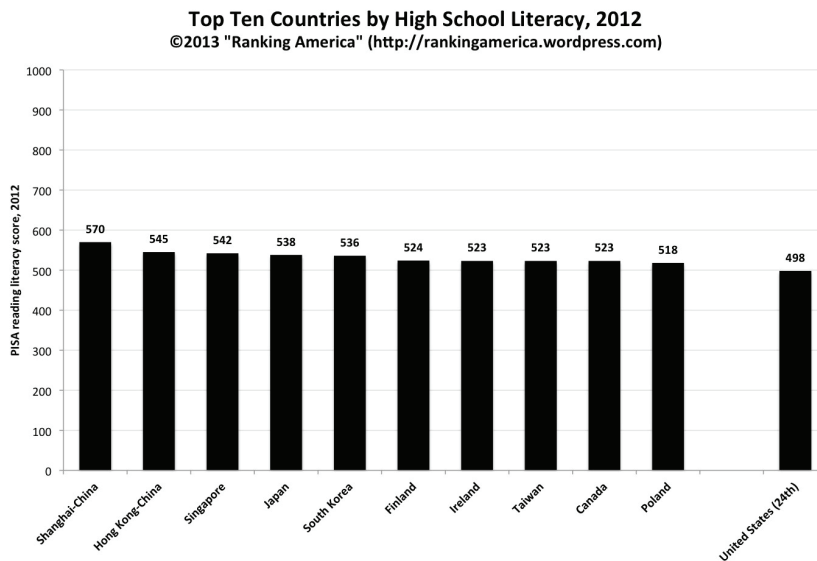5 "Literacy Statistics". BegintoRead.com.

**CONTEXT
cont.**
>

But underlying this thought—the first and no doubt the less complex of the two—there was, in our opinion, a second, a more modern—a corollary to the former idea, less on the surface and more likely to be contested; a view fully as philosophic, but pertaining no longer exclusively to the priest, but to the scholar and the artist likewise. It was a premonition that human thought, in changing its outward form, was also about to change its outward mode of expression; that the dominant idea of each generation would, in future, be embodied in a new material, a new fashion; that the book of stone, so solid and so enduring, was to give way to the book of paper, more solid and more enduring still. In this respect the vague formula of the Archdeacon had a second meaning—that one Art would dethrone another Art: Printing will destroy Architecture.[6]

Though pictorial storytelling dates back to the earliest cave wall paintings, the true picturebook harks back to a mere 130 years ago, when artist and illustrator Randolph Caldecott (1846-1886) first began to elevate the image into a storytelling vehicle rather than mere decoration for text.

Top Ten Countries by High School Literacy, 2012
©2013 "Ranking America" (http://rankingamerica.wordpress.com)

C !" left, *NCES pisa Survey GRAPH*
http://nces.ed.gov/surveys/pisa/pisa2012/
pisa2012highlights_5a.asp

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6 Hugo, Victor Marie. Notre Dame de Paris. Vol. XII. Harvard Classics Shelf of Fiction. New York: P.F. Collier & Son, 1917.

**FIELD
TRIP**

Illuminated manuscript collection:

> ## Pierpont Morgan Library
225 Madison Ave
New York, NY 10016, US

The Morgan Crusader Bible was originally a Picture Bible without text created for and likely commissioned by Louis IX, the crusader king of France (1226-1270). It presented Old Testament history with an emphasis on holy war and kingship. Sometime after the death of Louis IX, unknown scribes added Latin texts to the margins of the manuscript. There are also more modern inscriptions added including Persian and Judeo-Persian.

Six painters participated in the illumination of the Gothic Crusader Bible. Their miniatures are not only different in style but also in terms of colouring. A very clear difference is discernible in the rich use of gold. The original binding was lost during the centuries. However, the Bodleian Library in Oxford still possesses a manuscript which King Louis IX commissioned around the same time as the Crusader Bible and which still is in its original Gothic de luxe leather binding. That binding was used as a model for this fine art facsimile edition. [7]

D *The Crusader Bible, The picture book, which was likely made in Paris about 1250, has long been associated with the court of Louis IX, the pious crusader king of France and builder of the Sainte-Chapelle.*

Pierpont Morgan Library. Manuscript. M.638. [facsimile] Die Kreuzritterbibel = The Morgan Crusader Bible = La Bible des croisades. Luzern : Faksimile Verlag ; New York : Pierpont Morgan Library, c1998-c1999.
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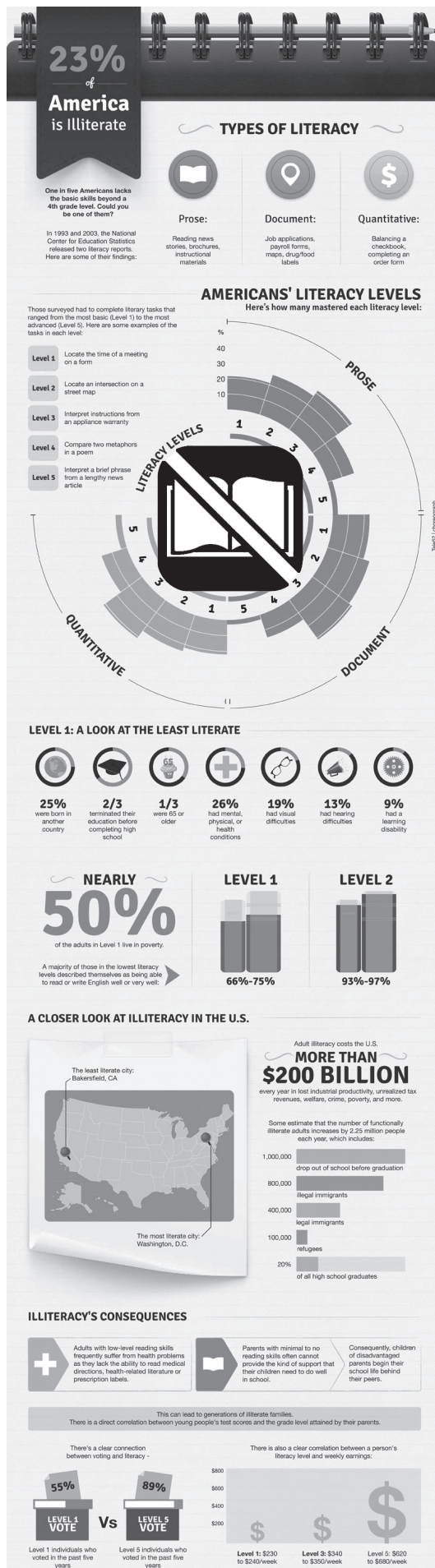
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1 IN 7 U.S. ADULTS ARE
functionally illiterate

E ! left, Image from *Annie Holmquist.*
"Illiteracy Is Costing America Billions."
Intellectual Takeout. August 26, 2015.
http://www.intellectualtakeout.org/blog/
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23%
of
America
is Illiterate

One in five Americans lacks the basic skills beyond a 4th grade level. Could you be one of them?

In 1993 and 2003, the National Center for Education Statistics released two literacy reports. Here are some of their findings:

TYPES OF LITERACY

Prose:
Reading news stories, brochures, instructional materials

Document:
Job applications, payroll forms, maps, drug/food labels

Quantitative:
Balancing a checkbook, completing an order form

AMERICANS' LITERACY LEVELS
Here's how many mastered each literacy level:

Those surveyed had to complete literary tasks that ranged from the most basic (Level 1) to the most advanced (Level 5). Here are some examples of the tasks in each level:

Level 1 Locate the time of a meeting on a form

Level 2 Locate an intersection on a street map

Level 3 Interpret instructions from an appliance warranty

Level 4 Compare two metaphors in a poem

Level 5 Interpret a brief phrase from a lengthy news article

PROSE

LITERACY LEVELS

QUANTITATIVE

DOCUMENT

%
40
30
20
10

LEVEL 1: A LOOK AT THE LEAST LITERATE

25% were born in another country

2/3 terminated their education before completing high school

1/3 were 65 or older

26% had mental, physical, or health conditions

19% had visual difficulties

13% had hearing difficulties

9% had a learning disability

NEARLY
50%
of the adults in Level 1 live in poverty.

A majority of those in the lowest literacy levels described themselves as being able to read or write English well or very well:

LEVEL 1
66%-75%

LEVEL 2
93%-97%

A CLOSER LOOK AT ILLITERACY IN THE U.S.

The least literate city: Bakersfield, CA

The most literate city: Washington, D.C.

Adult illiteracy costs the U.S.
MORE THAN
$200 BILLION
every year in lost industrial productivity, unrealized tax revenues, welfare, crime, poverty, and more.

Some estimate that the number of functionally illiterate adults increases by 2.25 million people each year, which includes:

1,000,000 — drop out of school before graduation

800,000 — illegal immigrants

400,000 — legal immigrants

100,000 — refugees

20% — of all high school graduates

ILLITERACY'S CONSEQUENCES

Adults with low-level reading skills frequently suffer from health problems as they lack the ability to read medical directions, health-related literature or prescription labels.

Parents with minimal to no reading skills often cannot provide the kind of support that their children need to do well in school.

Consequently, children of disadvantaged parents begin their school life behind their peers.

This can lead to generations of illiterate families. There is a direct correlation between young people's test scores and the grade level attained by their parents.

There's a clear connection between voting and literacy -

There is also a clear correlation between a person's literacy level and weekly earnings:

55%
LEVEL 1 VOTE
Level 1 individuals who voted in the past five years

Vs

89%
LEVEL 5 VOTE
Level 5 individuals who voted in the past five years

$800
$600
$400
$200

Level 1: $230 to $240/week

Level 3: $340 to $350/week

Level 5: $620 to $680/week

Inside Out - Outside In

the interior urbanism of the library

As libraries challenge what they are and how they're used, how must their architecture adapt and evolve? What kind of public life should they harbor and promote?

AN INTERIOR PUBLIC SPACE

As one of the few non-commercial public spaces left in cities where people still can freely gather, libraries offer an opportunity to reconsider and restore the central role of public space indoors.

Given we spend over 90% of our time inside, should we not conceive of indoor public space as equal, if not more important, to what we so preciously advocate for the outdoors (parks, plazas, sidewalks, streets)? Providing shelter, safety, and comfort, the interior offers the natural environment where the wider spectrum of human interaction can unfold. We can shape these spaces, not as closed cocoons in isolation, but as porous platforms able to instigate new opportunities to interact, learn, and generate meaningful connections in the public realm.

In the midst of an institutional and infrastructural transformation, the library becomes the ideal conduit to project an urban venue for a new kind of collective condition - an architecture that reshapes our experience of the city from the inside out.

Junya Ishigami, Kanagawa Institute of Technology, 2010
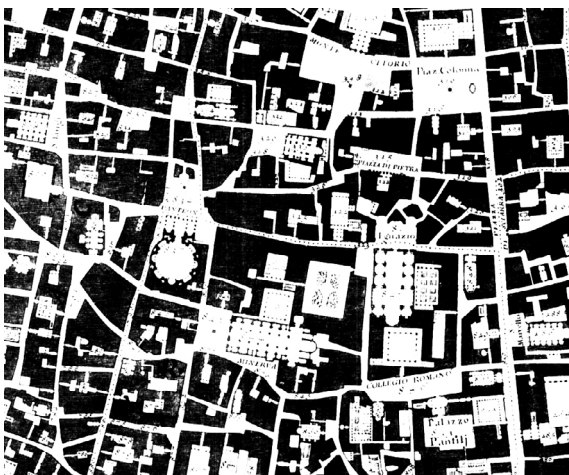
Nolli Plan of Rome - Indoors and outdoor form part of the public realm

IN, OUT, AND AROUND

Our contemporary understanding of indoors space can borrow from how we think about and design for outdoor public spaces, landscapes, and cities - an *interior urbanism* that, at its core, is the natural purview of architecture. In, out and around, our studio will examine how the library can become the vehicle to generate spaces that are an active part of the public realm and catalytic for civic engagement.

Indoor public space has been relegated to the realm of transit and transaction (the mall, the station, the atrium, the store) yet in its diminish form, it remains stubbornly vibrant. New York is no stranger to propositions of interior public rooms (Rockefeller Center, Grand Central, the subway, the Ford Foundation) that define and punctuate the character of the city. We crave more.

In an age where we resign ourselves to extol Starbucks and the Apple Store as stalwart advocates of public life indoors, can we conceive of a new, perhaps better, inner public life - less banal, commercial, and controlled; more intimate, surprising, and diverse?

In this context, the studio will explore the potential of libraries as a *third space* and the capacity of their architecture to shape environments (in and out) that provide a layered relationship from the room, onto the street and to the city. We will question and explore the library's form, structure, and program at various scales and against the measure of our different senses to propose new experiences and atmospheres. To do this, the
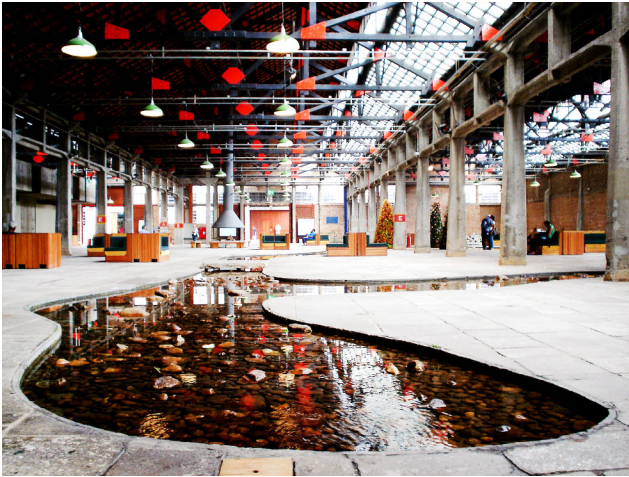
Lina Bo-Bardi, SESC Popei, Sao-Paulo 1982

studio will observe and analyze spatial conditions (natural, urban, architectural) that shape social behavior in cities, and conversely, social conditions that emerge in the built environment that determine how we inhabit and use space.

A COLLECTIVE CONTEXT

The library has become more than its stacks and readings rooms - it is now a place for meetings, events, concerts, lectures, art, classes, technology, and more. This diminishing importance of the physical delivery of information is recasting the library's role as a place for community and exchange.

As libraries evolve to encompass this ever wider range of circumstances, they must develop strategies that allow a programmatic mix not only to work but to thrive. Operationally, they are forced to do more with less: stretching their staff, thinning their budgets and straining their infrastructure. In the meantime, if we acknowledge the public nature of interior spaces, libraries must as readily embrace spaces that are less programmed, more ambiguous - like the park or the street, perhaps a place indoors where we can simply hang out.

In a city that increasingly lacks them, we crave spaces able to foster community; spaces that aspire not only to collect but to connect; spaces that comfortably hybridized program; and more importantly, spaces that address a new landscape of contemporary life where boundaries between work, life, and leisure are blurred. It's this collective context libraries must embrace and inhabit.

The studio will explore inherent conflicts and contradiction that immediately arise, negotiating issues between the what is public and what is private, between silence and noise, between security and control, between the communal and

the intimate, between movement and repose. In this spirit, you will seek to design spaces that deliver a wide range of spatial qualities and scales, from the very open to fully enclosed, from light to dark, from loud to quiet, from small to large. You will construct a new spatial ecology for the library.

The question remains: what should the contemporary library be? Do we face a typological revolution or its natural evolution?

Freed from any institutional legacy or inherited social mission, the studio will seek to project provocative alternatives for the library in the 21st century by designing a new vessel for civic gathering, of dizzying activity, of vibrant inner life, of hybridized identity, of immoderate inclusion.
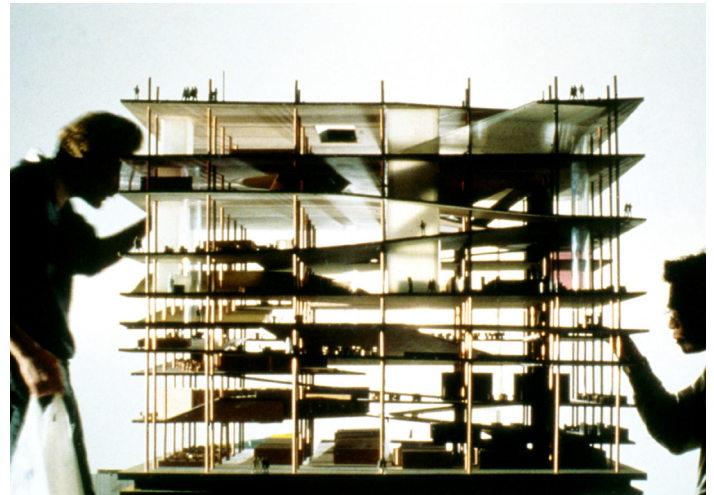
OMA, Jussieu – Two Libraries, Paris 1992

OUTPUT

The parallel use of multiple modes of representation will be encouraged. Working through models, photographs, montages, and drawings, we will mix, test, and explore architectural propositions and spatial effects. With an emphasis on iterating, documenting, capturing tangible results, we will seek to generate more individual and specific modes of visual expression.

José Aragüez

A4002: Core II Architecture Studio
Columbia University GSAPP
Spring 2017, MWF 2 – 6

The Infrastructural Building

Toyo Ito
The New Deichman Main Library in Oslo, Norway (2008)

Sou Fujimoto
N/A House in Tokyo, Japan (2010)

This studio defines *the infrastructural building* as a three-dimensional organization that is capable of realistically housing a set of human activities and yet is not tied to any particular programmatic package. In other words, it is a material structure that transcends any specificity of form to program while retaining a fundamental architecturalness.

The library happens to be one of the most flexible programmatic packages. Countless of different spatial typologies have proven suitable to holding a library. As a result, it lends itself to be explored through the notion of *the infrastructural building*—one that rejects any identity between spatial typology and program—in especially productive ways. Moreover, this notion taps into the increasing necessity for buildings to accommodate change over time, while resisting any compromise on architectural qualities in the name of "flexibility." Our premise will be that, in further delineating *the infrastructural building*, the six propositions below underpin a design framework that facilitates historically significant contributions in the domain of architectural thinking:

1. Form-Program. This species of building embodies the concept of *form-program*, i.e. a construct where the two categories are synthesized. In such a construct, "program" is not construed as form's *a posteriori* infill, but as form's inherent content. "Form" becomes a programmatically inflected three-dimensional configuration, rather than the outcome of merely morphological operations.

2. **Curated Equilibrium between Order and Differentiation: Toward Three-Dimensional Field Conditions.** *The infrastructural building* hinges on a deliberate equilibrium between order—whether apparent or underlying—and differentiation. It operates at the edge of control: it materializes a lawful pattern or set of decisions capable of catalyzing chance, variations, and obstacles by means of local adjustments. It's coherent and yet diverse; consistent and yet nuanced. In a sense, it pursues the three-dimensionalization of Stan Allen's *field conditions*.

3. **Beyond Separation between Floors.** In-depth research into the building's internal organization will be pursued largely as a means to free it from its pervasive identification with uniformly stratified space. Rather than some version of a vertical pile of slabs, we will consider three-dimensional infrastructures capable of overcoming the separation between levels through an array of distinct configurational properties. These infrastructures will bring about alternative ways of organizing the various knowledge formats within the library as well as novel relationships with the itineraries around them.

4. **Structure as Spatial Medium.** *The infrastructural building* capitalizes on the subversive disciplinarity of the architecture-engineering hybrid—a design domain whose basis lies at the intersection of both disciplines. This approach channels a double understanding of the notion of structure, both in the conventional sense of the building's physical support and in that of the organizational properties of form. It is one enabling us to abstract properties away from the former and turn them into a generative spatial code in the latter. As a result, a shift can be effected from structure as a series of neutral elements, unrelated to the conception of the building, to structure as a spatial medium coextensive with it.

5. **Distinctive Spatial Qualities.** Just like its bi-dimensional counterparts, the "free plan" and the "free section," the "free infrastructure" proposed here allows for multiple distributions within it, partitions and structure being independent. At the same time, however, since such an infrastructure is envisaged as a spatial medium, it materializes a specific configuration and therefore, far from being neutral, introduces a number of distinctive spatial qualities. Among other things, this kind of infrastructure calls into question the idea of having "rooms" within it; offers new possibilities to tap into the historical importance of ceilings (and related openings) in libraries; and helps transcend the garden model by incorporating outdoor spaces as part of the *form-program* substance.

6. **From Concealment to Integration of Services.** Louis Kahn famously distinguished between "served" and "servant" spaces, the latter encompassing most of what mechanical engineering deals with (ducts, pipes, etc.) as well as other connective elements, such as stairs, elevators, and corridors. Rather than placing the servant spaces in the building's leftover regions—i.e. rather than subordinating them to the served spaces—*the infrastructural building* devises the two sets as largely equivalent, the hierarchy between them dissolved. Can servant spaces be turned into the very elements articulating the library and further envisioned in connection with the structure? Can services and flows be reformulated again (after Ito's fundamental breakthrough at Sendai) by becoming built into the concept of the spatial organization itself?