Brutalist architecture

Brutalist architecture is a style of architecture which flourished from the 1950s to the mid 1970s, spawned from the modernist architectural movement.

Boston City Hall, part of Government Center, Boston, Massachusetts (Gerhardt Kallmann and N. Michael McKinnell, 1969). The structure illustrates typical (but not necessary) Brutalist characteristics such as top-heavy massing, the use of slender base supports, and the sculptural use of raw concrete.

The term "brutalism"

The British architects Alison and Peter Smithson coined the term in 1953, from the French *béton brut*, or "raw concrete", a phrase used by Le Corbusier to describe the poured board-marked concrete with which he constructed many of his post-World War II buildings. The term gained wide currency when the British architectural critic Reyner Banham used it in the title of his 1966 book, *The New Brutalism: Ethic or Aesthetic?*, to characterize a somewhat recently established cluster of architectural approaches, particularly in Europe.[1]

The architectural style known as **Brutalism** and the architectural and urban theory known as **New Brutalism** may be regarded as two different movements, although the terms are often used interchangeably. The New Brutalism of the British members of Team 10, Alison and Peter Smithson, is more related to the theoretical reform of the CIAM (in architecture and urbanism) than to "béton brut". Reyner Banham formulated this difference in the title of his book: "The New Brutalism - Ethic or Aesthetic?"

Trellick Tower, London, 1966-1972, designed by Ernő Goldfinger. It is Grade II* listed.

The Interior of the Phillips Exeter Academy Library, 1965-1971, by Louis Kahn.
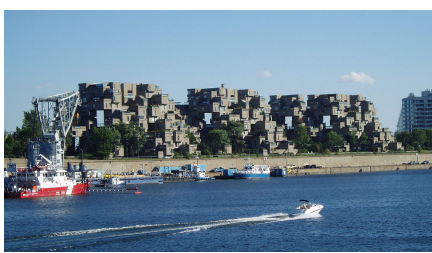

The building of the National bank of Macedonia.

Many stations of the Washington Metro system display Brutalist characteristics

The Jatiyo Sangshad Bhaban (National Assembly Building of Bangladesh), 1961-1981, by Louis Kahn.

The Habitat 67 in Montréal, Québec, Canada

Characteristics

Brutalist buildings usually are formed with striking repetitive angular geometries, and, where concrete is used, often revealing the texture of the wooden forms used for the in-situ casting. Although concrete is the material most widely associated with Brutalist architecture, not all Brutalist buildings are formed from concrete. Instead, a building may achieve its Brutalist quality through a rough, blocky appearance, and the expression of its structural materials, forms, and (in some cases) services on its exterior. For example, many of Alison and Peter Smithson's private houses are built from brick. Brutalist building materials also include brick, glass, steel, rough-hewn stone, and gabion

J. Edgar Hoover Building in Washington, D.C.

(also known as trapion). Conversely, not all buildings exhibiting an exposed concrete exterior can be considered Brutalist, and may belong to one of a range of architectural styles including Constructivism, International Style, Expressionism, Postmodernism, and Deconstructivism.

Another common theme in Brutalist designs is the exposure of the building's functions—ranging from their structure and services to their human use—in the exterior of the building. In the Boston City Hall (*illustration right*), designed in 1962, the strikingly different and projected portions of the building indicate the special nature of the

rooms behind those walls, such as the mayor's office or the city council chambers. From another perspective, the design of the Hunstanton School included placing the facility's water tank, normally a hidden service feature, in a prominent, visible tower.

Brutalism as an architectural philosophy, rather than a style, was often also associated with a socialist utopian ideology, which tended to be supported by its designers, especially Alison and Peter Smithson, near the height of the style. Critics argue that this abstract nature of Brutalism makes the style unfriendly and uncommunicative, instead of being integrating and protective, as its proponents intended. Brutalism also is criticised as disregarding the social, historic, and architectural environment of its surroundings, making the introduction of such structures in existing developed areas appear starkly out of place and

The University of California, San Diego's Geisel Library is one of the most famous examples of Brutalist architecture, and has been featured in a number of science fiction movies.

alien. The failure of positive communities to form early on in some Brutalist structures, possibly due to the larger processes of urban decay that set in after World War II (especially in the United Kingdom), led to the combined unpopularity of both the ideology and the architectural style.
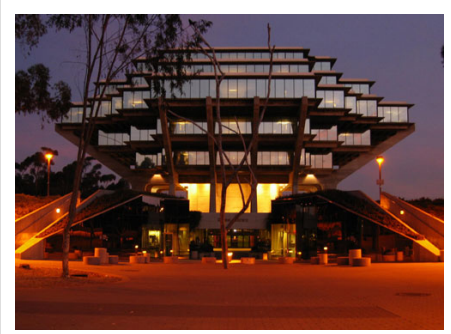
History

The best known early Brutalist architecture is the work of the Swiss architect Le Corbusier, in particular his Unité d'Habitation (1952) and the 1953 Secretariat Building in Chandigarh, India.

Brutalism gained considerable momentum in the United Kingdom during the mid twentieth century, as economically depressed (and World War II-ravaged) communities sought inexpensive construction and design methods for low-cost housing, shopping centres, and government buildings. Nonetheless, many architects chose the Brutalist style even when they had large budgets, as they appreciated the 'honesty', the sculptural qualities, and perhaps, the uncompromising, anti-bourgeois, nature of the style.

Combined with the socially progressive intentions behind Brutalist streets in the sky housings such as Corbusier's *Unité*, Brutalism was promoted as a positive option for forward-moving, modern urban

Park Hill (detail), Sheffield. Lynn, Smith 1961

housing. In practice, however, many of the buildings built in this style lacked many of the community-serving features of Corbusier's vision, and instead, developed into claustrophobic, crime-ridden tenements. Robin Hood Gardens is a particularly notorious example, although the worst of its problems have been overcome in recent years. Some such buildings took decades to develop into positive communities. The rough coolness of concrete lost its appeal under a damp and gray northern sky, and its fortress-like material, touted as vandal-proof, soon proved vulnerable to spray-can graffiti.

Figures

In the United Kingdom, Architects associated with the Brutalist style include Ernő Goldfinger, wife-and-husband pairing Alison and Peter Smithson, and, to a lesser extent perhaps, Sir Denys Lasdun. In Australia, three examples of the Brutalist style described as the country's finest are Robin Gibson's Queensland Art Gallery, Ken Woolley's Fisher Library at the University of Sydney (his State Office Block is another) and the High Court of Australia by Colin Madigan in Canberra.[2] John Andrews's government and institutional structures in Australia also exhibit the style. In Asia there are government buildings by Louis Kahn. Paul Rudolph and Ralph Rapson, from the United States are

both noted Brutalists. Walter Netsch is known for his Brutalist academic buildings (see above). Marcel Breuer was known for his "soft" approach to the style, often using curves rather than corners. Clorindo Testa in Argentina created the Bank of London and South America, one of the best examples of the fifties. More recent Modernists such as I.M. Pei and Tadao Ando also have designed notable Brutalist works. In Brazil, the style is associated with the Paulista School and is evident in the works of Pritzker Architecture Prize-winning architect Paulo Mendes da Rocha (2006). In the Philippines, Leandro Locsin designed the massive brutalist structures, the Cultural Center of the Philippines and the Philippine International Convention Center. In New Zealand, Sir Miles Warren and his practice Warren & Mahoney led the development of the so-called "Christchuch School" of architecture, which fused Brutalist architectural style with Scandinavian and Japanese values of straightforwardness. Warren's buildings have had a significant effect on New Zealand's public architecture.

On university campuses

In the late 1960s, many campuses in North America were undergoing expansions and, as a result, there are a significant number of Brutalist buildings at American and Canadian universities, beginning with Paul Rudolph's 1958 Yale Art and Architecture Building. Rudolph's design for the University of Massachusetts Dartmouth is an example of an entire campus designed from scratch in the Brutalist style. Likewise, architect Walter Netsch designed the entire University of Illinois-Chicago Circle Campus (now the East Campus of the University of Illinois at Chicago) under a single, unified brutalist design.[3] The original "inner ring" of buildings at the University of California, Irvine was designed by a team of architects led by William Pereira in what he called a "California Brutalist" style.[4]

The Roger Stevens Building at the University of Leeds is the centre piece to a large complex of Brutalist buildings connected by skyways.

Examples outside the USA include McLennan Library, Burnside Hall and the Stephen Leacock building at McGill University in Montreal; much of the Belfield Campus of University College Dublin; the Academic Quadrangle and WAC Bennett Library at Simon Fraser University; the John Andrews Building of the University of Toronto Scarborough, the William G. Davis Building of University of Toronto Mississauga, and Robarts Library at the University of Toronto in Toronto; significant parts of York University in Toronto; the University of British Columbia in Vancouver; the Aula of Delft University in the Netherlands; Rand Afrikaans University in Johannesburg; and Tunku Chancellor Hall in University of Malaya, Malaysia [5]. In Australia, Macquarie, Flinders, and Curtin Universities. In Macedonia, the Ss. Cyril and Methodius University in Skopje. In New Zealand the University of Canterbury and parts of the University of Auckland City Campus. In the United Kingdom, the Charles Wilson Building of the University of Leicester, Harvey Court, for Gonville and Caius College, Cambridge and Churchill College, Cambridge (1962-8) and Dunelm House, University of Durham (1965), the University of York (1963) are all notable examples alongside much of the University of Leeds. In Geneva Switzerland, the Uni Dufour building of the University of Geneva is located very close to the center of Geneva, next to the Opera House and Place Neuve.

University of Toronto's Robarts Library in downtown Toronto, Ontario, Canada.

Walter Netsch designed the East Campus of the University of Illinois at Chicago

Wean Hall, Carnegie Mellon University, Pittsburgh.

The Aula of Delft University in the Netherlands.

Posvar Hall at the University of Pittsburgh

The Civic Offices, Wood Quay, Dublin

The Barco Law Building at the University of Pittsburgh School of Law

Ss. Cyril and Methodius University of Skopje

University of Pittsburgh School of Information Sciences building.

The Mathematics and Computer Building at the University of Waterloo in Waterloo, Ontario

D.B. Weldon Library at the University of Western Ontario

University of Massachusetts Dartmouth Campus Center, as designed by Paul Rudolph

The Malcom Moos Health Sciences Tower at the University of Minnesota Twin Cities campus.

The *Student Union* building at Queens College.

Rensselaer Polytechnic Institute's Folsom Library

The Coventry School of Art and Design's Graham Sutherland Building.

Birmingham Central Library Building, Birmingham, England.

Darwin College at the University of Kent

The John Andrews Building of the University of Toronto Scarborough

Criticism and reception

Brutalism has some severe critics, including Charles, Prince of Wales. His speeches and writings on architecture have excoriated Brutalism, calling many of the structures "piles of concrete". "You have to give this much to the Luftwaffe", said Prince Charles at the Corporation of London Planning and Communication Committee's annual dinner at Mansion House in December 1987. "When it knocked down our buildings, it didn't replace them with anything more offensive than rubble."[6] Much of the criticism comes not only from the designs of the buildings, but also from the fact that concrete façades do not age well in damp, cloudy maritime climates such as those of northwestern Europe. In these climates, the concrete becomes streaked with water stains and sometimes with moss and lichens, and rust leaches from the steel reinforcing bars.

The proposed demolition of the Third Church of Christ, Scientist in Washington, D.C. has resulted in court battles between historic preservationists and church members.

At the University of Oregon campus, outrage and vocal distaste for Brutalism led, in part, to the hiring of Christopher Alexander and the initiation of The Oregon Experiment in the late 1970s. This led to the development of Alexander's *A Pattern Language* and *A Timeless Way of Building*.

In recent years, the bad memories of under-served Brutalist community structures have led to their demolition in communities eager to make way for newer, more traditionally-oriented community structures. Despite a nascent modernist appreciation movement, and the identified success that some of this style's offspring have had, many others have been or are slated to be demolished.

The building of RIA Novosti, former press-center of 1980 Summer Olympics (Moscow, USSR), 1979

Theodore Dalrymple, a British author, physican, and political commentator, has written for *City Journal* that brutalist structures represent an artifact of European philosophical totalitarianism, a "spiritual, intellectual, and moral deformity." He called the buildings "cold-hearted", "inhuman", "hideous", and "monstrous". He stated that the reinforced concrete "does not age gracefully but instead crumbles, stains, and decays", which makes alternative building styles superior.[7]

Matthew Yglesias, a commentator at Think Progress, has argued that brutalist structures in Boston such as its City Hall "sort of kill pleasant urbanist neighborhoods".[8]

Resurgence

The Leeds International Pool, built in 1967, designed by disgraced British architect John Poulson. Demolished 2009.

Although the Brutalist movement was largely dead by the mid-1980s, having largely given way to Structural Expressionism and Deconstructivism, it has experienced an updating of sorts in recent years. Many of the rougher aspects of the style have been softened in newer buildings, with concrete façades often being sandblasted to create a stone-like surface, covered in stucco, or composed of patterned, pre-cast elements. Modernist architects taking this approach in recent projects include Steven Ehrlich, Ricardo Legorreta, and Gin Wong. The firm of Victor Gruen and Associates has revamped the style for the many courthouse buildings it has been contracted to design. Architects from Latin America have been reviving the style on a smaller scale in recent years. Brutalism has recently experienced a major revival in Israel, due to the perceived sense of strength and security the style creates. With the development of LiTraCon—a form of translucent concrete—a new Brutalist movement may be on the horizon.

Even in Britain, where the style was most prevalent (and later the most reviled), a number of buildings recently (as of 2006) have appeared in an updated Brutalist style, including deRijke Marsh Morgan's 1 Centaur Street in Lambeth, London, and Elder & Cannon's The Icon in Glasgow in Scotland. The 2005 Stirling Prize shortlist contained a number of buildings (most notably Zaha Hadid's BMW Central Building and the eventual winner, Enric Miralles' Scottish Parliament Building) featuring significant amounts of exposed concrete, something that would have been regarded as aesthetically unacceptable when the prize was inaugurated nine years previously.

The Regenstein Library at the University of Chicago, designed in the late 1960s by Walter Netsch

There also has been a reappraisal of first-generation Brutalist architecture and a growing appreciation that dislike of the buildings often stems from poor maintenance and social problems resulting from poor management, rather than the designs themselves. In 2005 the British television channel Channel 4 ran a documentary, *I Love Carbuncles*, which placed the U.K.'s Brutalist legacy in a more positive light. Some Brutalist buildings have been granted listed status as historic and others, such as Gillespie, Kidd and Coia's St. Peter's Seminary, named by *Prospect* magazine's survey of architects as Scotland's greatest post-war building, have been the subject of conservation campaigns. The Twentieth Century Society has campaigned against the demolition of buildings such as the Tricorn Centre and Trinity Centre Multi-Storey Car Park.

Notes

[1] Golan 2003, p.3 (http://www.findarticles.com/p/articles/mi_m0422/is_2_85/ai_104208984/pg_3).

[2] Farrelly, Elizabeth (2010-10-09). "Watch this space - Brutalism meets beauty in the National Gallery's new wing". *The Sydney Morning Herald* "Spectrum" section. pp. 16–17.

[3] Historic Netsch Campus at UIC (http://www.uic.edu/depts/oaa/walkingtour/Netsch_Walking_Tour_03.pdf) Retrieved December 31, 2010

[4] "Anteater Chronicles: William Pereria, Architect" (http://www.lib.uci.edu/ucihistory/index.php?page=architecture&function=pereira). University of California, Irvine Library. 2006. .

[5] http://www.um.edu.my/mainpage.php?um=bW9kdWxlPU1ha2x1bWF0Jmthd0Vnb3JpPTUxJmlkPTI1NSZwYXBhcj0x

[6] Glancey, Jonathan (2004-05-17). "Life after carbuncles" (http://www.guardian.co.uk/artanddesign/2004/may/17/architecture. regeneration). *The Guardian* (London). . Retrieved 2010-04-27.

[7] Theodore Dalrymple (Autumn 2009). "The Architect as Totalitarian" (http://www.city-journal.org/2009/19_4_otbie-le-corbusier.html). *City Journal*. . Retrieved January 4, 2010.

[8] Matthew Yglesias (October 11, 2009). "Ugly Buildings" (http://yglesias.thinkprogress.org/archives/2009/10/ugly-buildings.php). Think Progress. . Retrieved January 4, 2010.

References

• Romy Golan, Historian of the Immediate Future: Reyner Banham - Book Review (http://www.findarticles.com/ p/articles/mi_m0422/is_2_85/ai_104208984/pg_1), *The Art Bulletin*, June 2003. Accessed online at FindArticles 23 October 2006.

External links

• Reflections on Brutalist Architecture in East London (http://thethirdestate.net/2009/05/brutal-but-true)

• Ontario Architecture: Brutalism (http://www.ontarioarchitecture.com/Brutalist.htm)

• From Here to Modernity (http://www.open2.net/modernity/inner_frameset.htm) includes many Brutalist examples

• Tate Gallery Glossary entry for "Brutalism" (http://www.tate.org.uk/collections/glossary/definition. jsp?entryId=58)

Article Sources and Contributors

Brutalist architecture *Source*: http://en.wikipedia.org/w/index.php?oldid=425016673 *Contributors*: 25, 3GAU, 83d40m, Acyso, Adz, AgnosticPreachersKid, Ahpook, Alexthe5th, Alfonsomedina1, Allmyevilbunnies, Allthenamesaretaken, Alsandro, Amalex5, Ameenroshdy, AndrewWTaylor, Angr, AniRaptor2001, Arcas2000, Archizahra, Aubin, Aude, Awiseman, BassBooster, Bearcat, Beegees, Beetstra, BenFrantzDale, Benet Allen, Blackburnian64, Blago Tebi, Blckgismo, Bob247, Bolonium, Bonus Onus, Bovlb, Brenont, Brosi, BrownHairedGirl, California Girl 21, Capecodeph, Captain Quirk, Carlwev, Cashkid121, ChrisGriswold, ChrisMD123, Chriscobar, Christopherherbert01, Cixsy, Clemwang, Colonies Chris, CommonsDelinker, Cousin Kevin, Crazypaco, Cybercobra, Cyrius, DVD R W, DWaterson, Dale Arnett, Dan100, Daniel Case, Danski14, DavidFarmbrough, Demiurge1000, Detritus, Diderot, Dori, Dpr, Dr.K., DuncanHill, ENeville, Earle Martin, Econrad, Edelmand, Eelamstylez77, Eikenhein, Elekhh, Elonka, Esillisar, Evan7257, FayssalF, Feroshki, Flowersofnight, Foobaz, Fordmadoxfraud, Fourier jr, FrFintonStack, Fraggle81, Franciselliott, Francs2000, Franz-kafka, Fraslet, Friejose, Ft1, Futurebird, Fys, GCarty, Gaidheal, Geni, Ghirlandajo, Ghowells, Gidonb, Golbez, Goldenlane, Gony1983, Guitardemon666, Guslacerda, Guy Harris, H Padleckas, Harryboyles, Hede2000, Hedpeguyuk, Hmains, HoboJones, Hoice, Honza Záruba, Hppl, Huntington, JBellis, Jak123, JakeApple, Jammoe, Jayann, Jayron32, Jeff Dahl, Jeremiah, Jfpierce, Jim-Jim, Jkeene, Jmabel, Jpanzer, Jparenti, Juicycat, Justinc, Kaldari, KeithTyler, Keithlard, Kelisi, Kellen`, Kelly Martin, Kelviin, Ken Gallager, Kenyon, Kozuch, Kurykh, LGagnon, Leithp, Leuk2, Lineweight, Lockley, Look2See1, LoopZilla, Loose moth, Lunchboxhero, Maccess, Maccoinnich, Madman2001, Man vyi, Mani1, Mardus, Markhamman, Master20817, Mcginnly, Mcshadypl, Mhockey, Michael Hardy, Michael Rogers, MileyDavidA, Mitchewe, Moe Aboulkheir, Moonriddengirl, Morgan Riley, Mrcool1122, Mtaylor848, Natnatonline, Neale Monks, Neutrality, Nikie Decay, Northumbrian, ObfuscatePenguin, OlEnglish, Olivier, Otterfan, Ownedabove1, Palfrey, Paradiso, Paul W, Pete142, Pethan, Philip Cross, Pi zero, Piersmasterson, Pmj, Postpop, PriceCullen, Pruxo, Qyd, Randwicked, Raoul NK, Raven in Orbit, Rdsmith4, Red Hurley, Renyseneb, Rjwilmsi, Robert K S, Robth, Rodge500, Ruziklan, Rwgain02, ST47, Salmonforgey, Saval, Scarlet Lioness, SchuminWeb, SethTisue, Shaqspeare, Shauniemac, Shawn in Montreal, Shb3127, Slightlyslack, Slof, Smably, Solipsist, Spamguy, Squiddy, Steinbach, StradivariusTV, SuddenFrost, Szyslak, THB, Tariqabjotu, Taxiarchos228, Thecolemanation, Thomas Paine1776, Thomasjfletcher, Thryduulf, Tiger Burning, Tintin1107, ToddC4176, Tom, Tommy Gao, Trivialist, Twilight, Twilly41, Ulric1313, VSteparov, Vegaswikian, WB2, Walrus heart, Warling, Webarnes, Wetman, Wgiuliano, Whiteghost.ink, WikHead, Wikiuser100, Xanzzibar, Yohan euan o4, Yveslachance, 323 anonymous edits

Image Sources, Licenses and Contributors

Image:Boston city hall.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Boston_city_hall.jpg *License*: Creative Commons Attribution-Sharealike 3.0 *Contributors*: User:Dschwen

File:Trellick Tower2.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Trellick_Tower2.jpg *License*: unknown *Contributors*: stevecadman

File:Phillips Exeter Library, New Hampshire - Louis I. Kahn (1972)b.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Phillips_Exeter_Library,_New_Hampshire_-_Louis_I._Kahn_(1972)b.jpg *License*: Creative Commons Attribution 2.0 *Contributors*: Pablo Sanchez from Prague, Czech Republic

File:National bank of Macedonia.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:National_bank_of_Macedonia.jpg *License*: Public Domain *Contributors*: User:Guitardemon666

File:WMATA Metro Center crossvault 2009.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:WMATA_Metro_Center_crossvault_2009.jpg *License*: Creative Commons Attribution-Sharealike 3.0 *Contributors*: Ben Schumin

File:Jatiyo Sangshad Bhaban (Roehl).jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Jatiyo_Sangshad_Bhaban_(Roehl).jpg *License*: GNU Free Documentation License *Contributors*: MECU, Ragib, Ranveig, Souvik.arko, Wiiii, ~Pyb, 1 anonymous edits

File:Habitat 67, Montreal.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Habitat_67,_Montreal.jpg *License*: GNU Free Documentation License *Contributors*: Abebenjoe, Gene.arboit, Rimshot, Skeezix1000

File:Fbi headquarters.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Fbi_headquarters.jpg *License*: Creative Commons Attribution-Sharealike 2.5 *Contributors*: User:Aude

File:Geisel library.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Geisel_library.jpg *License*: GNU Free Documentation License *Contributors*: Original uploader was Four at en.wikipedia

Image:Park Hill close-up.JPG *Source*: http://en.wikipedia.org/w/index.php?title=File:Park_Hill_close-up.JPG *License*: Creative Commons Attribution-Sharealike 2.5 *Contributors*: Edward, Nevit, Oneblackline, SchuminWeb, Warofdreams

File:University of Leeds (4th May 2010) 035.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:University_of_Leeds_(4th_May_2010)_035.jpg *License*: Creative Commons Attribution-Sharealike 3.0 *Contributors*: User:Mtaylor848

File:Robarts Library.JPG *Source*: http://en.wikipedia.org/w/index.php?title=File:Robarts_Library.JPG *License*: GNU Free Documentation License *Contributors*: Dr.K., Jphillips23

File:Uic_east_campus_spring.JPG *Source*: http://en.wikipedia.org/w/index.php?title=File:Uic_east_campus_spring.JPG *License*: Creative Commons Attribution-Sharealike 2.5 *Contributors*: User:Hied5

File:Wean hall.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Wean_hall.jpg *License*: GNU Free Documentation License *Contributors*: User:ziplux

File:Aula_TU_Delft.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Aula_TU_Delft.jpg *License*: GNU Free Documentation License *Contributors*: Original uploader was T Houdijk at nl.wikipedia

File:Wesley Wentz Posvar Hall.JPG *Source*: http://en.wikipedia.org/w/index.php?title=File:Wesley_Wentz_Posvar_Hall.JPG *License*: Public Domain *Contributors*: Alan Liefting, Richardrut, Shizzy9989

Image:Civic Offices on Wood Quay in Dublin.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Civic_Offices_on_Wood_Quay_in_Dublin.jpg *License*: Public Domain *Contributors*: Original uploader was Jtdirl at en.wikipedia Later version(s) were uploaded by Hoshie, Aplank at en.wikipedia.

File:BarcoSummerRear.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:BarcoSummerRear.jpg *License*: Creative Commons Attribution-Sharealike 3.0 *Contributors*: User:TheZachMorrisExperience

File:Ss. Cyril and Methodius University of Skopje.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Ss._Cyril_and_Methodius_University_of_Skopje.jpg *License*: Creative Commons Attribution 2.0 *Contributors*: Jacobo Canady

File:SchoolofInformationSciencesPitt.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:SchoolofInformationSciencesPitt.jpg *License*: Creative Commons Attribution-Sharealike 3.0 *Contributors*: User:TheZachMorrisExperience

File:WaterlooMathBuilding.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:WaterlooMathBuilding.jpg *License*: GNU Free Documentation License *Contributors*: User:CryptoDerk

File:D_B_Weldon_Library_University_of_Western_Ontario_1.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:D_B_Weldon_Library_University_of_Western_Ontario_1.jpg *License*: Creative Commons Attribution 2.5 *Contributors*: User:Balcer

File:UMassD campus center entrance.JPG *Source*: http://en.wikipedia.org/w/index.php?title=File:UMassD_campus_center_entrance.JPG *License*: Creative Commons Attribution-Sharealike 2.5 *Contributors*: LGagnon, Verne Equinox

File:UMN-MoosTower.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:UMN-MoosTower.jpg *License*: GNU Free Documentation License *Contributors*: Ben Franske

File:Student union building cuny queens.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Student_union_building_cuny_queens.jpg *License*: Creative Commons Attribution 3.0 *Contributors*: User:Tommy Gao

File:Folsom Library- RPI.JPG *Source*: http://en.wikipedia.org/w/index.php?title=File:Folsom_Library-_RPI.JPG *License*: Creative Commons Attribution-Sharealike 2.5 *Contributors*: Besselfunctions, Delton

File:Graham Sutherland Building -Coventry University 4m08.JPG *Source*: http://en.wikipedia.org/w/index.php?title=File:Graham_Sutherland_Building_-Coventry_University_4m08.JPG *License*: Creative Commons Attribution-Sharealike 3.0 *Contributors*: User:Snowmanradio

File:Paradise Forum, Birmingham Library, Chamberlain Memorial.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Paradise_Forum,_Birmingham_Library,_Chamberlain_Memorial.jpg *License*: Creative Commons Attribution-Sharealike 3.0 *Contributors*: Original uploader was Oosoom at en.wikipedia

File:DARWINCOLL.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:DARWINCOLL.jpg *License*: Public Domain *Contributors*: User:Cashkid121

File:John Andrews Building Scarborough 2010 (5).jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:John_Andrews_Building_Scarborough_2010_(5).jpg *License*: Creative Commons Attribution-Sharealike 2.0 *Contributors*: Loozrboy from Toronto, Canada

File:Third Church of Christ, Scientist - Washington, D.C..JPG *Source*: http://en.wikipedia.org/w/index.php?title=File:Third_Church_of_Christ,_Scientist_-_Washington,_D.C..JPG *License*: Creative Commons Attribution-Sharealike 3.0 *Contributors*: User:AgnosticPreachersKid

File:RIA Novosti building.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:RIA_Novosti_building.jpg *License*: GNU Free Documentation License *Contributors*: Raoul NK

Image:Leeds International Swimming Pool.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Leeds_International_Swimming_Pool.jpg *License*: unknown *Contributors*: Ardfern, Oneblackline, Ravenseft

Image:Regenstein Library entrance2.jpg *Source*: http://en.wikipedia.org/w/index.php?title=File:Regenstein_Library_entrance2.jpg *License*: Creative Commons Attribution 2.0 *Contributors*: jschroe Original uploader was Razum2000 at en.wikipedia

License