

# Amenity in Urban Revival

Urban Dwell

## Proxemics - Territoriality - Privacy

# 370



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Situated on the Lachine Canal in Montreal's Southwest borough, rock climbing gym Allez Up's newest facilities are part of an important urban and social renewal project.

In 1825, the Lachine Canal opened as a solution to allow boats to bypass the nearby rapids situated upstream. This new path of commerce kick started the industrial development around the canal and the area of what is now the Southwest borough. By the 1860s the area was a busy industrial neighbourhood; in fact, it was the most diversified concentration of industrial establishments in the country. During this time, in 1952, four silos were construction by Redpath Sugar Refinery as storage for the factory. However in 1970, the canal was officially closed causing companies to relocate and eventually led to the desolation of the neighbourhood. While other industrial buildings in the area became reused and repurposed,

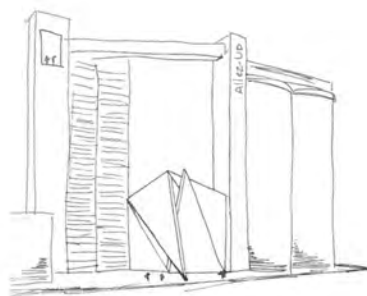
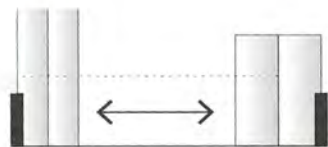
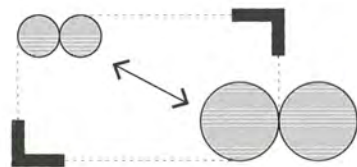
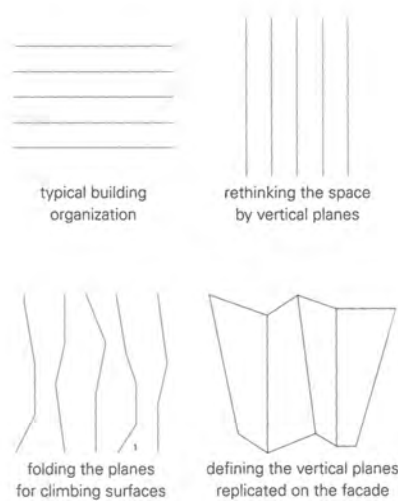
for nearly 40 years, the silos were left completely abandoned. Allez Up's previous gym was located nearby in one of the repurposed buildings. The client wanted to increase his capacity by at least 3 times and believed that the site and the silos offered an amazing potential for a rock climbing gym. The repurposing of the abandoned silos was a unique way to exploit the potential of Montreal's abandoned industrial past. Their transformation into recreational use was the first intervention of its kind in Canada and has significantly added to the recreational and touristic attractions on the Lachine Canal.

The cylindrical volumes were thus connected by a rectangular form which infilled most of the vacant site. This reconfiguration created new limits within the site and simultaneously connected the abandoned sets of silos.

## Allez-Up Climbing Center

Smith Vigeant Architects





The windows run full height and saturate the interior space with natural light throughout the day. The angularity of the facade provides an interesting dialogue with the verticality and solidity of the silos, while the metallic exterior finish nicely compliments the industrial character of the neighbourhood. At night, the large openings reveal the interiors and all its exciting activities taking place. The climbing walls were painted white to symbolize crystallized sugar and to remind visitors of its previous function as the Redpath Sugar Silos.

The silos were carefully integrated in the program: one of them is acting as a hub with the main access and distribution of the complex, while the other is used for setting climbing routes.

The inside of the silos was originally covered with two layers of cedar wood planks running full height, originally used to protect the stored sugar from humidity. However in order to convert the silos some of them had to be removed.

Respecting bioclimatic principles, all the openings were oriented south-east to optimize solar heat gain during the winter and also ensured natural light throughout the day. The mechanical systems were developed to maximize their efficiency and ensure energy savings. A radiant floor heating system was necessary in ensuring the comfort of occupants within such a vast space. The inherent elongated shape of the silos were taken advantage of and act as a chimney to create natural ventilation for the building.

The existing factory components had to be disassembled and removed, such as the sugar conveyor belt system and the original mechanical systems. The existing concrete structure had to be strengthened to accommodate new floors, openings, and occupant loads.

Project: Allez-Up Rock Climbing Gym

Location: Rue Saint-Patrick, Montreal, QC, Canada

Architects: Smith Vigeant Architects / Architect in charge: Daniel Smith

Design team: Daniel Smith, Karine Renaud, Anik Malderis,

Étienne Penault, Cindy Neveu, Mélanie Quesnel, Stéphan Vigeant

Engineers: NCK Inc & Martin Roy and associates

Landscape architects: Groupe Rousseau Lefebvre

Contractor: eSpace Construction Inc / Client: Richer – de la Plante Family

Lighting design: Smith Vigeant architects, Martin Roy et associates

Site area: 1,990m<sup>2</sup> / Bldg. area: 1,220m<sup>2</sup> / Gross floor area: 1,525m<sup>2</sup> / Completion: 2013

Photograph:

Courtesy of the architect - p.90, p.97

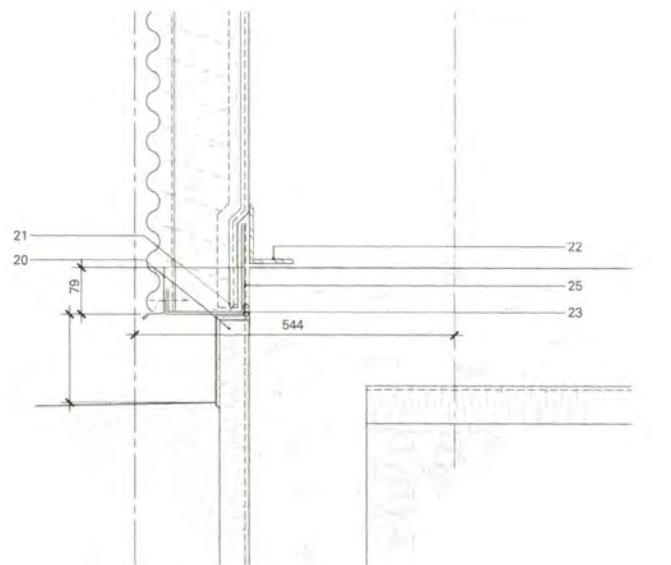
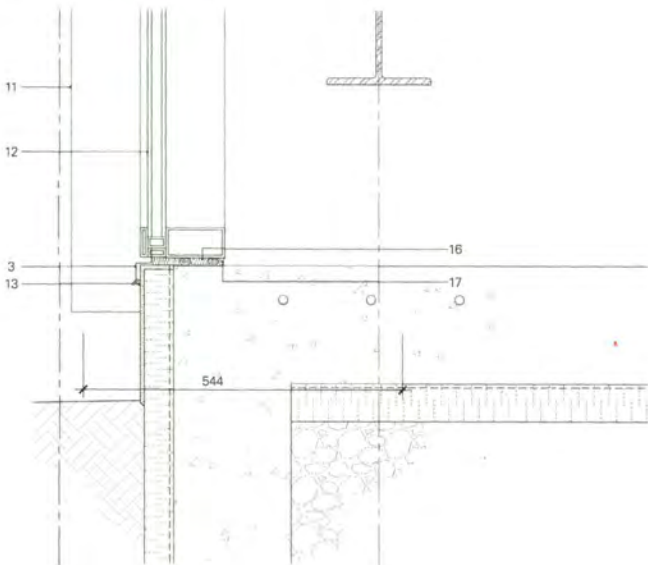
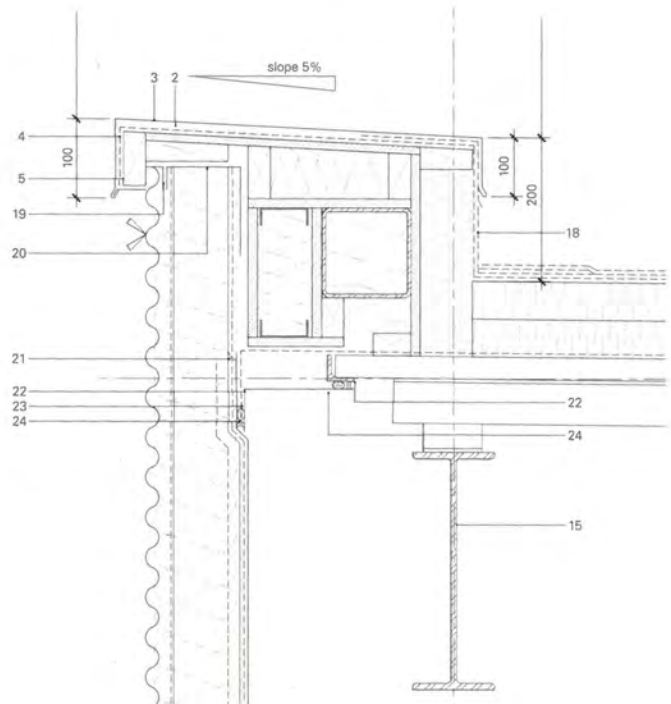
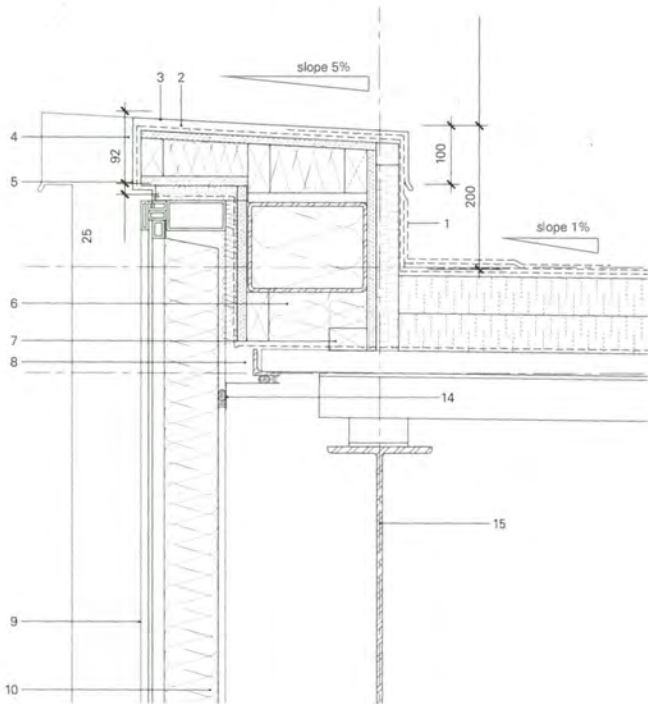
©Stephane Brugger (courtesy of the architect) - p.88, p.91, p.92-93, p.94, p.95, p.96





- 1. parapet (curtain wall)
  - glass spandrel panel
  - airspace 25mm, infill with insulation
  - plywood 16mm
  - structure
  - plywood 16mm
  - extruded polystyrene insulation 38mm
  - roof membrane
- 2. parapet
- 3. galvanized steel flashing color: dark brown
- 4. underlayment membrane
- 5. wood blocking
- 6. insulation
- 7. wood blocking 2x3
- 8. steel shelf angle
- 9. glass spandrel panel
- 10. galvanized steel panel
- 11. corrugated steel panel
- 12. glass curtain wall
- 13. continuous sealant
- 14. galvanized steel plate attached to the purlin and to the beam, insure watertightness; continuous sealant at perimeter

- 15. steel beam
- 16. infill cavity with spray in place polyurethane insulation
- 17. continuous mastic sealing compound at perimeter
- 18. parapet (metal siding wall)
  - corrugated steel panel 22mm
  - galvanized finish
  - air barrier
  - galvanized z-bar 150mm
  - semi-rigid rock wool insulation 150mm
  - plywood 16mm
  - metal studs @405mm c/c
  - semi-rigid rock wool insulation 100mm
  - plywood 16mm
  - HSS
  - extruded polystyrene 90mm
  - roof membrane
- 19. "c" channel
- 20. galvanized u-bar
- 21. sealant
- 22. steel shelf angle
- 23. vapour barrier
- 24. acoustical sealant
- 26. thermo tape



section a-a' \_curtain wall

section b-b' \_metal siding wall





**Bioclimatic design principles**

- ☁️ natural ventilation / chimney effect
- ☀️ natural light
- ☀️ solar gains

**Ecological materials**

- ♻️ low voc finishes and materials
- ♻️ reclaimed and recycled materials from demolition

**Thermal qualities**

- 🔥 radiant floor heating
- 🏠 thermal comfort zone

**Storm water management**

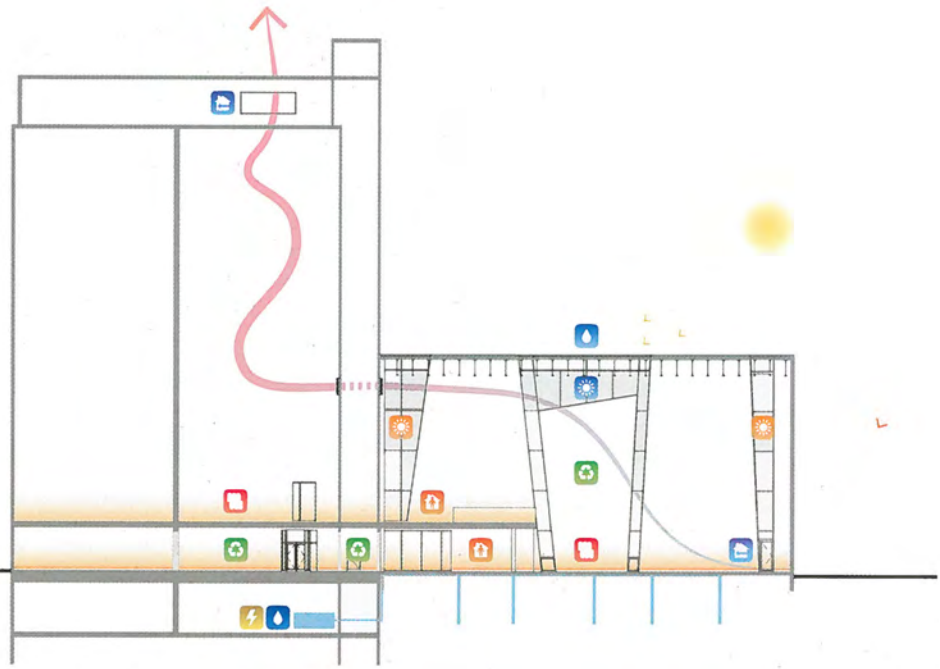
- 💧 water management & control
- 📉 30% water use reduction

**Energy performance**

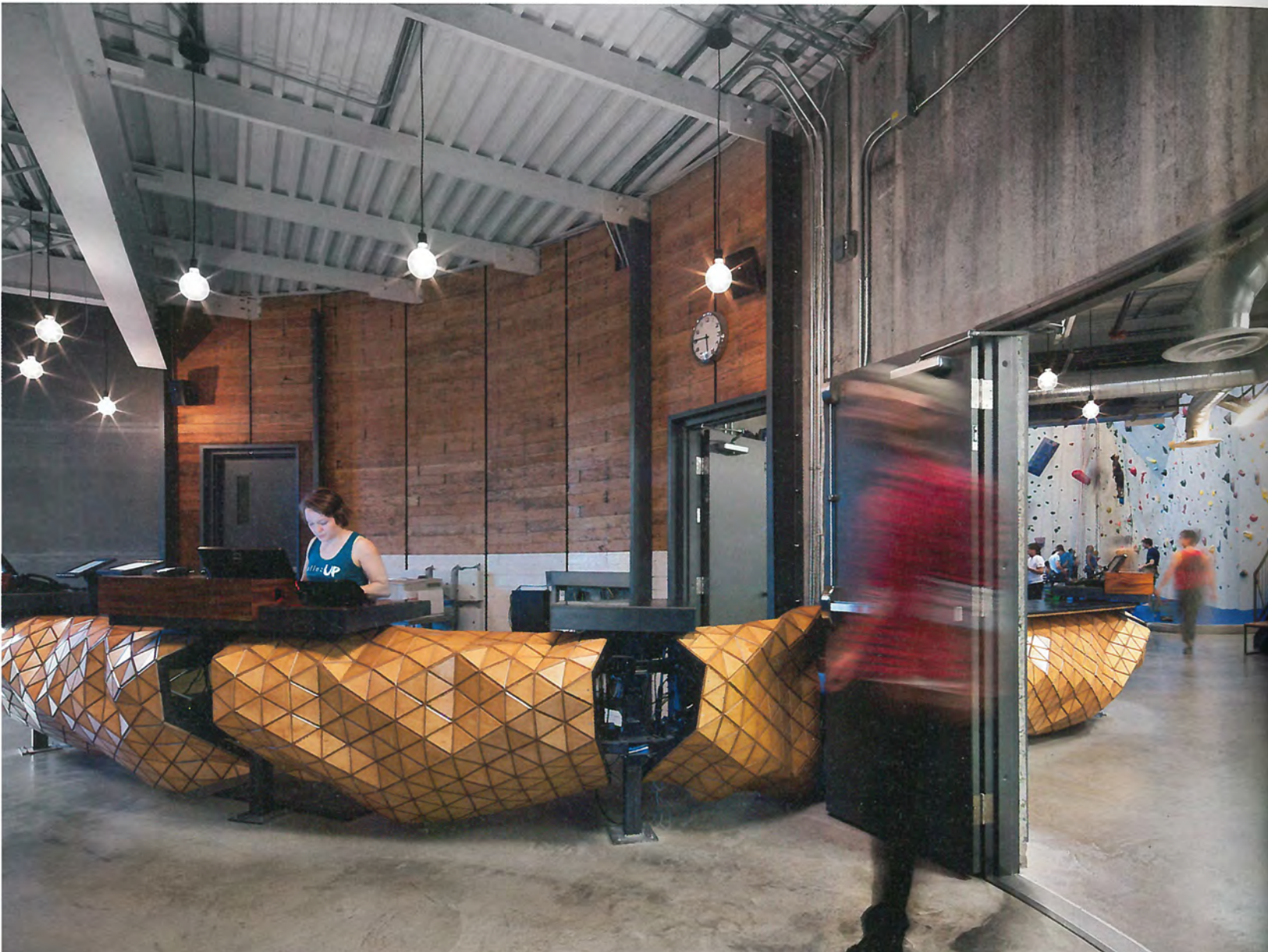
- 🔋 energy bank
- ⚡ optimized energy performance (40% cont reduction ASHRAE reference bldg)
- 🔌 geothermal energy hook up

**Sustainable development**

- rehabilitation of a contaminated site
- reduced heat island effect (100% white roof membrane)
- adapted reuse of existing structures (95%)
- construction waste management (90% diverted)

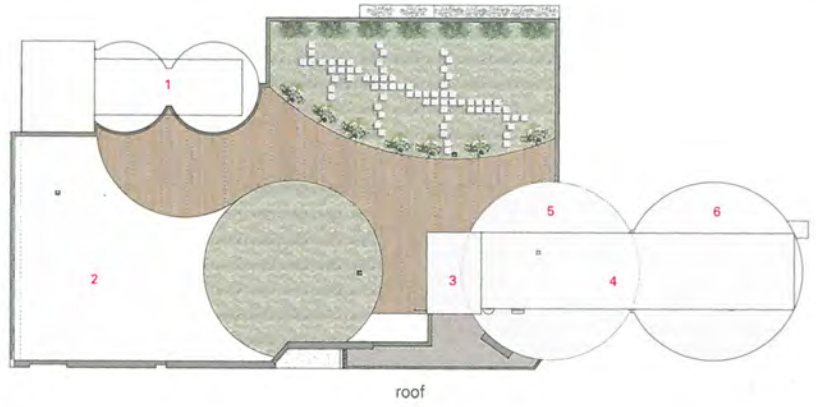


bioclimatic diagram

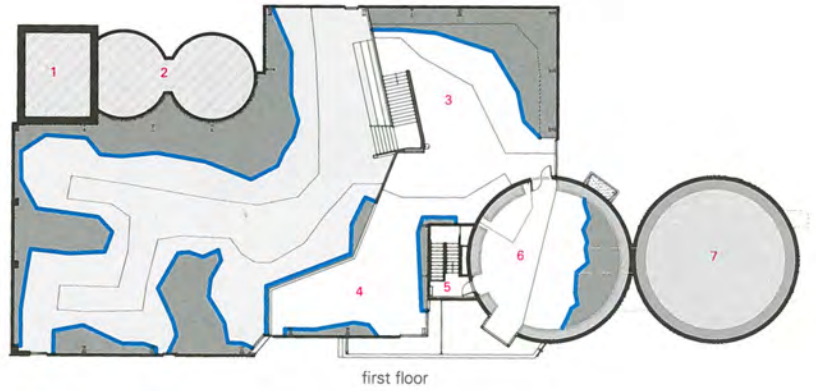




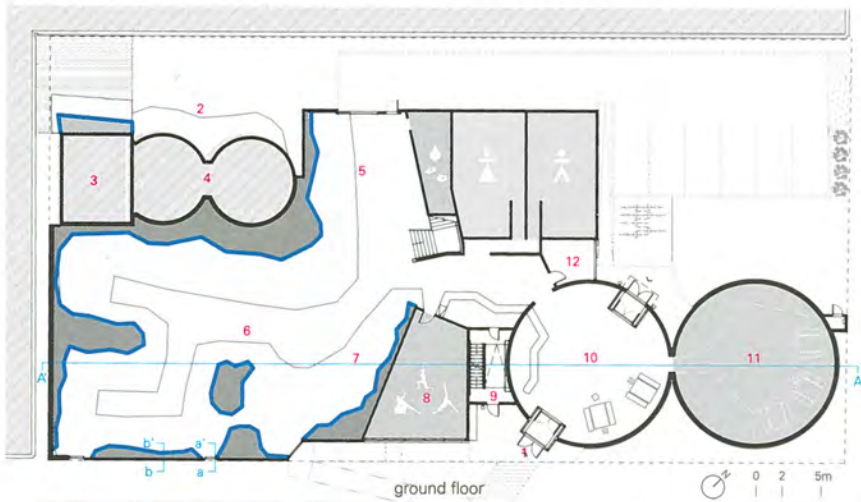
- 1. west silos
- 2. white roofing
- 3. stairs pitched roof
- 4. pitched roof east silo
- 5. silo roof 1
- 6. silo roof 2



- 1. west tower
- 2. west silos
- 3. bouldering
- 4. kids & beginners climbing
- 5. east tower
- 6. lounge and silo climbing
- 7. east silo phase 2



- 1. main entrance
- 2. exterior climbing on silo
- 3. west tower
- 4. west silos
- 5. lead climbing walls
- 6. rock climbing hall
- 7. bouldering
- 8. yoga room
- 9. east tower
- 10. reception
- 11. east silo phase 2
- 12. administration





EDUKE

WILLYTOPE

WILLYTOPE

**알레-업 실내 암벽등반장**

캐나다 제1의 항구 도시인 몬트리올 남서부에는 오늘날 몬트리올이 산업과 경제의 중심지로 자리 잡는 데 큰 기여를 한 라신 운하가 자리한다. 1825년, 14.5km 길이로 건설된 운하 덕분에 항로의 흐름이 원활해 지면서 도시는 눈부신 성장을 이루었다. 이후 운하 일대에는 수많은 공장이 들어섰고 1860년대에는 캐나다 최고의 산업 지역이 되었다. 그러나 산업시대의 막이 내리기 시작한 20세기 후반, 운하의 운영이 중단되자 공장도, 복적이던 사람들도 하나둘 자취를 감추기 시작했다.

그렇게 잊혀졌던 운하 일대가 40여 년 만에 다시 주목받기 시작했다. 도시 재생의 일환으로 버려진 산업 시설을 재활용하면서 많은 유휴 공간이 시민들을 위한 매력적인 공간으로 탈바꿈했기 때문이다. 그중에는 설탕 공장이 실내 암벽등반장으로 변신한 사례도 있다. '알레-업', 위로 올라가자는 뜻의 이 센터는 운하를 방문하는 관광객에는 새로운 볼거리이자, 지역 주민들에게는 활력 넘치는 레크레이션 장소로 거듭나고 있다.

암벽등반장은 1952년, 제당 회사, 레드팩스가 창고로 사용하기 위해 건설한 두 개의 커다란 원형 사일로로 개조한 것이다. 버려진 산업 시설을 레크레

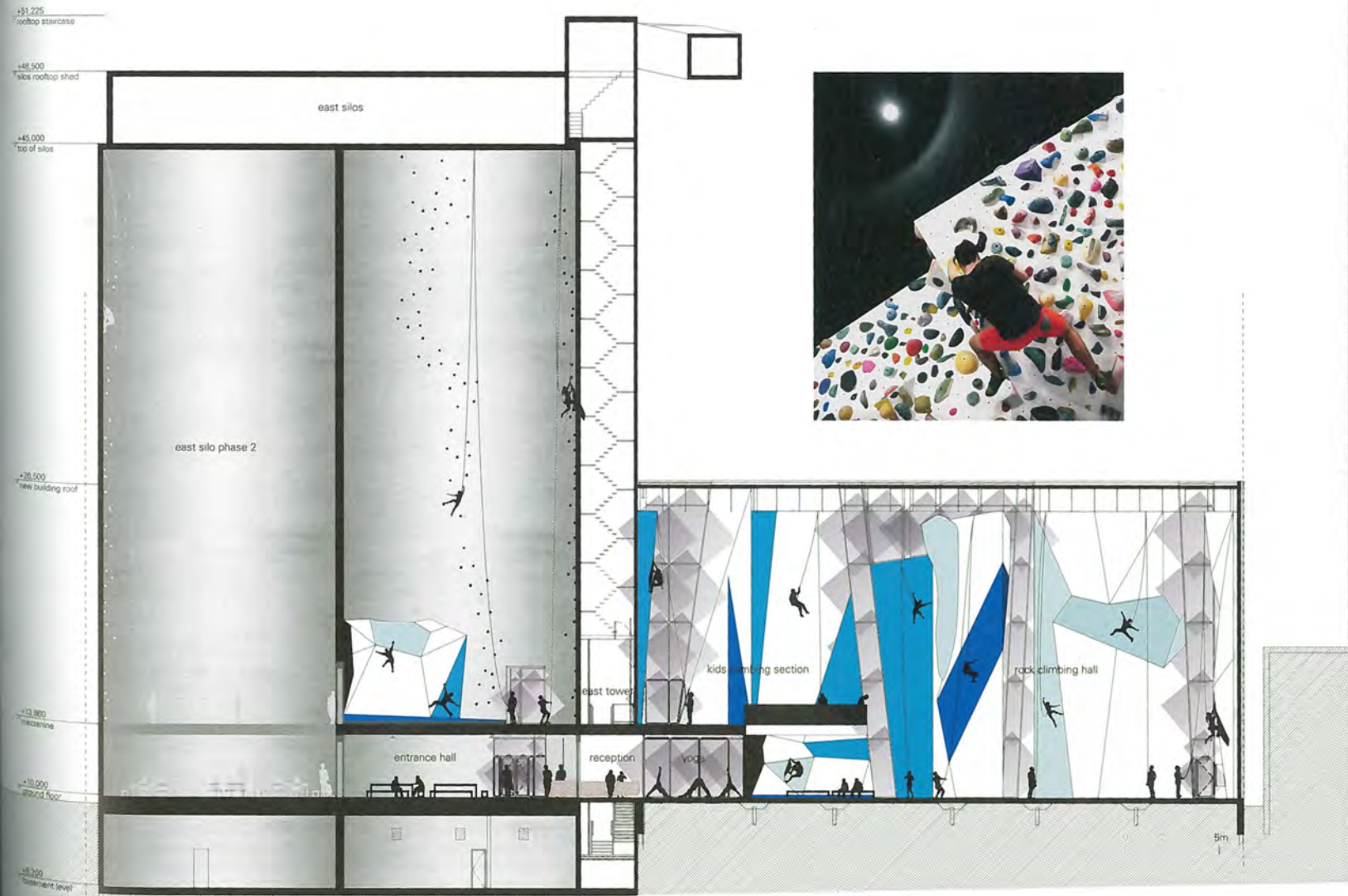
이션 시설로 재사용하는 것은 캐나다에서는 매우 이례적인 경우이기에 더욱 특별한 의미가 있는 건물이다.

센터는 대각선으로 놓인 두 쌍의 원형 사일로 사이에 자리한다. 지름이 넓은 북동쪽 사일로는 암벽등반장으로 들어가는 진입공간으로 쓰이고, 높이가 높은 북서쪽 사일로는 실외 암벽등반시설로 사용된다.

기존의 사일로는 설탕을 습기로부터 보호하기 위해 내부가 두 겹의 삼나무 합판으로 덮여있었다. 이 합판 중에 일부만을 남겨두고 내부에 있던 각종 기계는 모두 폐기했다. 공장의 독특한 외형만을 보존한 셈이다.

대신 센터 곳곳에는 설탕 공장을 상징하는 요소가 담겨있다. 마치 설탕을 쌓아둔 것 같은 흰색의 암벽과 얼음 사탕을 연상케 하는 암벽의 알록달록한 홀드를 보면 알 수 있다. 또한, 금속 패널로 마무리한 외피는 이곳이 과거 산업 지역이었음을 대변하며 주변과 조화를 이룬다.

친환경적인 부분도 고려했다. 탐처럼 길고 얇은 여러 개의 창문을 남동쪽으로 냈다. 이를 통해 낮에는 풍부한 자연채광이 실내를 가득 채우고, 밤에는 내부 조명 효과가 더해져 움직임이 더 역동적으로 느껴진다. 자연 환기는 과거에도 그랬듯이 지금도 기존의 사일로가 그 역할을 하고 있다.





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**Chang Architects**

Chang Yong Ter was born and raised in Singapore, Yong Ter's passion for architecture was discovered during his university years at the School of Architecture, National University of Singapore. Upon graduation, he sought apprenticeship with Mr. Tang Guan Bee for several years, before starting his practice, Chang Architects, at the turn of this millennium.

Yong Ter believes that architectural design is a work from the mind and the heart. While rationality and logic could fulfill functional briefs and achieve pragmatic efficiencies, an intuitive, poetic approach could resonate with the soul, and transcend limitations of rationalities. Therefore, part of the design process also includes unlearning and forgetting, and self-discoveries of the basics/origin.

싱가포르 태생의 창 용 텡은 싱가포르 국립대학교 건축학부에서 공부했다. 졸업 후에는 싱가포르 건축가 탕 관 비의 사무실에서 수년간 경험을 쌓았으며, 2000년 즈음 독립해 창 아키텍츠를 설립했다. 그는 건축 디자인이란 설계자의 진정성과 열정을 기반으로 이루어져야 한다고 말한다. 또한, 합리와 논리를 통해 기능적인 요소와 실용적인 효율성이 구축된다면, 직관적이면서도 감성적인 접근법을 통해서도 물리적인 한계를 초월해 보는 이들의 영혼을 울릴 수 있는 건축을 만들 수 있다고 믿는다. 그러한 맥락에서 잊기와 버리기, 그리고 모든 지식을 내려놓는 것과 자신의 근본을 탐구하는 과정 또한 설계 과정의 일부로 포함되어야 한다고 주장한다.

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**Smith Vigeant Architectes**

Daniel Smith<sup>SM</sup> and Stéphan Vigeant<sup>SM</sup> have been working together since 1992 to define an architectural practice that transcends the traditional scope of the profession. Their vision, combined with diverse and extensive professional experience, now extends to a wide range of projects from the residential, institutional, cultural, corporate, and urban design sectors. Their integrated and sustainable approach enables the team to pioneer solid and unique design solutions that effectively incorporate their collective expertise. With this holistic approach to design, all components of a building are integrated from the initial design phase until completion. The team at Smith Vigeant have built a deep portfolio that includes a broad array of projects varying in scope and complexity, that are cost-effective, energy efficient and have low environmental impact.

다니엘 스미스<sup>SM</sup>와 스테판 비장트<sup>SM</sup>는 1992년부터 함께 일했다. 다양한 경험을 바탕으로 통해 박힌 사고에서 벗어나기 위해 노력하며, 주거, 기업, 문화 등 폭넓은 분야에서 자신들만의 시각을 보여주고 있다. 특히 독특한 디자인에 전문 지식을 더한, 지속 가능하면서도 친환경적으로 통합된 접근을 추구함으로써 작업마다 초기 개념이 그대로 유지되고 실현된다.

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**Tod Williams Billie Tsien Architects**

Tod Williams<sup>SM</sup> was born in Detroit, Michigan and received his undergraduate degree and Master of Fine Arts and Architecture from Princeton University. Billie Tsien<sup>SM</sup> was born in Ithaca, New York and received her undergraduate degree in Fine Arts from Yale and her Master in Architecture from UCLA. Williams and Tsien began working together in 1977 and nine years later established their partnership, Tod Williams Billie Tsien Architects, in a ground floor space on Central Park South where they still work today. Most recently, they were awarded an honorary international fellowship to the Royal Institute of British Architects, the National Medal of Arts from the United States government, and the Firm Award from the American Institute of Architects.

토드 윌리엄스<sup>SM</sup>는 미시간의 디트로이트 출신으로, 프린스턴 대학교에서 순수 미술로 학사 및 석사 학위를 받았다. 빌리 쟈옌<sup>SM</sup>은 뉴욕 이타카 출신이며, 예일 대학교에서 순수 미술을 전공한 뒤 UCLA에서 건축 석사 학위를 받았다. 두 사람은 1977년부터 함께 일하기 시작했으며, 9년 후, 센트럴 파크 인근에 사무소를 설립한 뒤 지금까지 그 자리를 지키며 작업을 해나가고 있다. 최근에는 영국건축학회의 국제 명예 회원이 됐으며, 이 연방 정부와 미국 건축가협회로부터 각각 국가예술훈장과 우수 건축사무소 상을 받았다.





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