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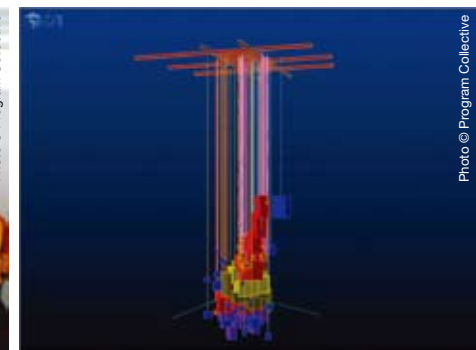
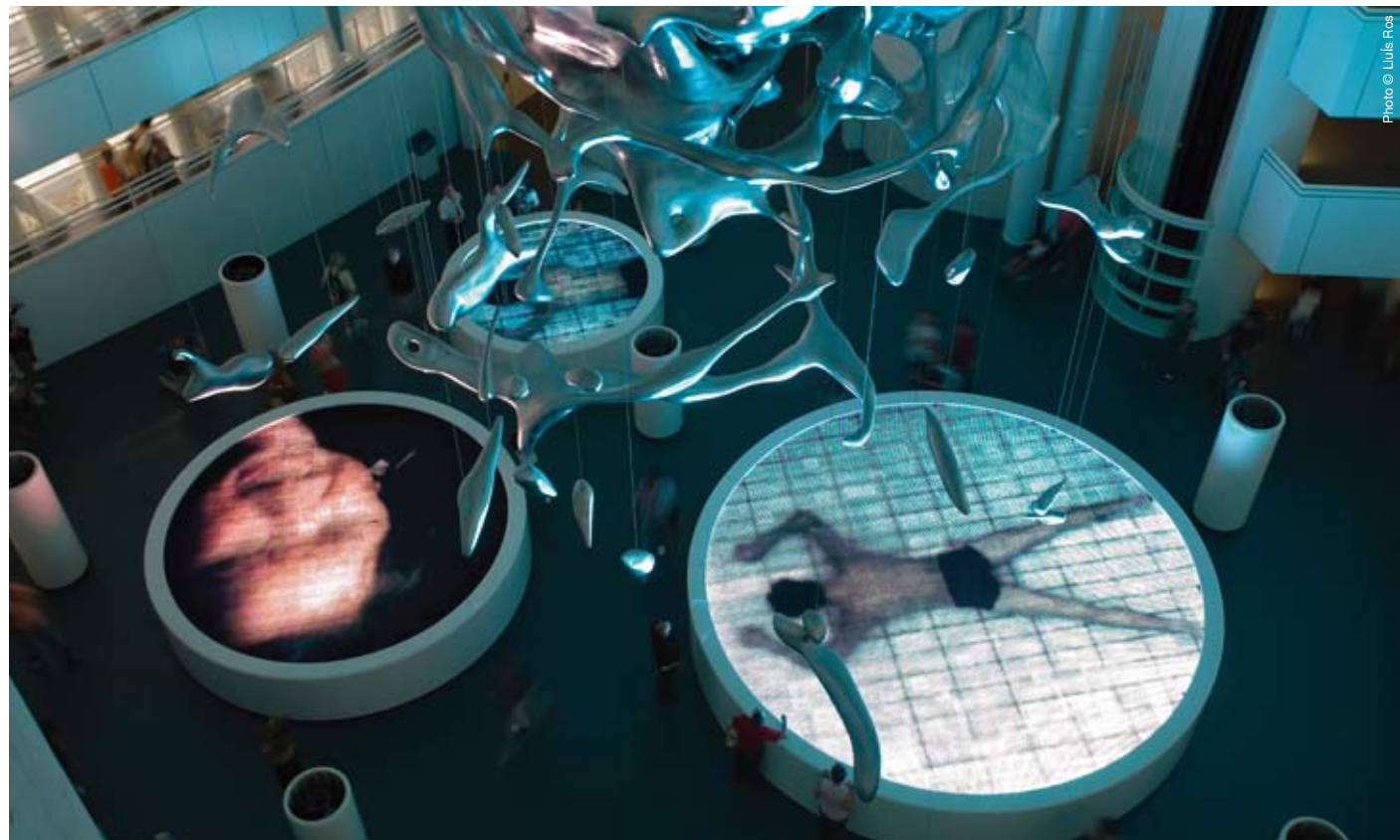
Photo © Gunnar Knechtel



Photo © Gunnar Knechtel

With 'Splash', the artists of PROGRAM COLLECTIVE (Mona Kim, Todd Palmer, Simon Taylor, Olga Subiros) met a series paradoxical challenges. It was at once, a creative fusion of software and structural engineering, machine construction and the human hand, 3D sculpture and time-based media, and site-specific design and socially transformative experience. 'Splash' provides a symbolic counterpoint to a science-based exhibition that reveals value of water to life and dangers to water sustainability. The collective sought a public happening that would convey both the technological and the primal, bridge science and culture, veneration and caution. At the core of the transdisciplinary response is a three-dimensional array that evokes the dynamism, fragility, and power contained in a single drop. To give shape to this concept, particles

software was used to simulate extreme physical forces (like gravity, wind, heat) acting on the liquid. This fluid dynamics digital model was translated into a mesh and finally to a solid which allowed structural calculations needed to hang the composition of 134 pieces from cables. The representation was then 3D printed as a 1:20 prototype, which guided the final fabrication. Each of the shapes were 'sculpted' through digital CAD-CAM cutting with smoothing, polishing, and special mirror effect finishing. The experience is complete with sound and visuals that were conceived together to address goals in relation to the 40m high space. As the public ascends the tower ramps, the time and motion-based capabilities of the installation are augmented by ambient audio-visuals.



프로그램 컬렉티브(모나 김, 토드 파머, 사이먼 테일러, 올라 수비로스)의 '스플래쉬' 작품은 소프트웨어와 구조공학, 기계공학과 수공업 기술들의 융합을 바탕으로 제작됐다. '스플래쉬'는 생명에 필수적인 물의 소중한 가치와 수질환경보전을 일깨워 주는 과학 전시회를 위한 목적으로 제작됐다. 컬렉티브는 자신들의 공공작품을 통해 자연의 근원적 원리와 과학 기술의 의미를 전달하고, 과학과 문화, 경외심과 경각심 등의 차이를 줄이고자 노력했다. 그리고 물 한 방울 속에 담겨있는 힘, 역동성과 취약성을 3차원적인 구성을 통해 작품을 승화시키고자 했다. 이러한 콘셉트를 표현할 수 있는 형태를 얻기 위해 입자 시뮬레이션 소프트웨어를 사용하여 물리학(중력, 바람, 열)을 액체에 가했을 경우의 결과를 디지털 모델과 구조계산의 과정을 통해 134개의 구성요소를 케이블로 연결하여 실제 구조물로 완성했다. 최종 조립하기 전에 3D 프린팅 기술을 사용하여 1:20 규모의 모형 제작 후 실제 작업에 참고했다. 각 구성 요소들의 형태는 CAD-CAM의 디지털을 사용하여 연마 작업과 특수 광택 재질로 마감했다. 작품이 전달하는 메시지는 음향 및 시각효과와 함께 40m 높이에 완성됐다. 관람객은 타워의 경사면 복도를 따라 올라가며 실시간으로 움직임에 반응하는 작품과 시청각적인 효과를 통해 구성요소 간에 생성되는 연계성과 융합을 더욱 느낄 수 있다.

Concept, Design & Direction : PROGRAM COLLECTIVE (Mona Kim, Todd Palmer, Olga Subirós, Simon Taylor) **Location :** Zaragoza, Spain **Size :** 40m, lobby **Design period :** 2007 ~ 2008, rebuilt in 2014 **Client :** Expo Zaragoza 2008 **Photographer :** Gunnar Knechtel, Lluís Ros, Program Collective. All images courtesy of Program Collective. **Program collective collaborators :** •Structural Engineer_José María Velasco •Installations Engineer_Grupo JG •Fountain Water Engineer_JM Llorca •Soundtrack_Martin Green •Sound Development_Marc Sardà •Lightning Development_Maurici Ginés •Digital VFX Development_Pere Gifre •Smell Development_Dario Sirerol •Multimedia Installations Consultants_Joan Fericgla, Carlos Silva •Design Assistance_Anne-Sophie de Vargas, Pol Esteve, Andrea Wasserman, Miriam Suso, Vera Sánchez •Image Research_Hiuwai Chu, Rosa Duque •Translation and Linguistic Services_Discobole •Production_LUNATUS •Production of Splash_PQC •Audiovisual Production_HLA

www.programcollective.com