Asterix on the West Coast

The *Adventures of Asterix* is a collection of comic books written by the French illustrator Rene Goscinny and Albert Uderzo between 1959 and 2010.

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INTRODUCTION

The story line of the Asterix books describes the entirety of Gallia, a territory known today as France, as occupied by the Romans with the exception of one settlement. The village of Asterix and his eccentric fellow Gauls resists the Roman territorialization with their smart, clever and sophisticated ideas as well as the support of a magic potion. Stimulated through the intake of this special elixir, the villagers are able to fight off the Romans with their temporary superhuman powers.

Asterix, the main character of the adventures is supported in protecting the village by a group of distinct friends. Obelix, Getafix, Vitalstatistix, Cacofonix and many other villagers have diverse professions such as farmers, sculptors or blacksmith, but transform into a strong homogenous unit of resistance with extraordinary strength when given the magic potion.[1]

Mirroring the faith and stamina of this Gallian village, sits a linear building in downtown Los Angeles, home to the Southern California Institute of Architecture (SCI-Arc).

SCI-Arc features several similarities to this Gallian village. It is a small renegade architecture school situated within an ocean of overpowering large institutions with highly acclaimed reputation such as the University of Southern California or the University of California in Los Angeles. Yet, since its inauguration, the institute has not only been able to compete against these and other national academic giants, but fully resist the mainstream paradigm of the design discipline and building profession. For several decades, the program has managed to appear at the periphery of architectural discourse, yet constantly pushes the boundaries of innovation from within the confines of its educational model.

If the *Adventures of Asterix* exemplifies the resistance of an underdog village against a large empire, then SCI-Arc, as single-program architecture school, is competing

1

Figure 1: *Asterix by* Rene Goscinny and Albert Uderzo

against large-scale campus programs. If Asterix and his village friends are able to both follow their daily professions and transform into a defending army if necessary, then how is the SCI-Arc faculty structured to maintain its unique status within the landscape of architectural education?

What is the magic potion behind the SCI-Arc model? What are the objectives and educational methodologies to implement their distinct pedagogy?

This paper will evaluate the opportunities SCI-Arc offers to further the promotion of the school particularly through engaging in Design-Build projects within extra- and curricula activities.

Within this essay, I will track several formal and informal Design-Build projects currently presented inside SCI-Arc. From small scale installations, encroaching on corridors and hanging from ceiling surfaces within the confines of the building to large scale pavilions for graduate ceremonies on prominent display in the parking lot, the faculty and student body implement a range of Design-Build projects and hence maintain and enhance the status of a contemporary place of design education.

This paper outlines the unique role of the schools mission, identifies a feedback loop between the educator-as-practitioner model, specifies achievement through production, and concludes with how contribution to contemporary models of design/ build can advance a social, cultural and technological academic environment.

THE SCI-ARC MODEL

Situated in downtown Los Angeles, SCI-Arc is an architecture school offering a professional Undergraduate and Graduate education. The School is a stand-alone institution with no other academic programs or disciplines attached.

Within this soloist approach, the school does not provide a heterogeneous academic environment as we see on many other architecture campuses across the country. The lack of potential academic collaborators, or cross-disciplinary opportunities with other departments, forces the SCI-Arc to come across this default by creating an internal environment of expertise, diversity and productivity.

2

Over the last forty years the school has constantly pushed the boundaries of design education and successfully surfaced as one of the powerhouses in the architectural landscape. Two aspects for its success might be attributed to the dismissal of the tenure-system and the subsequent challenge for all faculty to not only teach, but to actively pursue practice.

Each faculty member is constantly encouraged to engage and further the architectural discussion through their intellectual and creative contributions. The continuous production of projects, designs, competitions and writings by the faculty creates opportunities for SCI-Arc and its community to engage with other disciplines and professions. This distinct strategy of faculty networking, outreach and engagement compensates for the lack of a large academic campus environment.

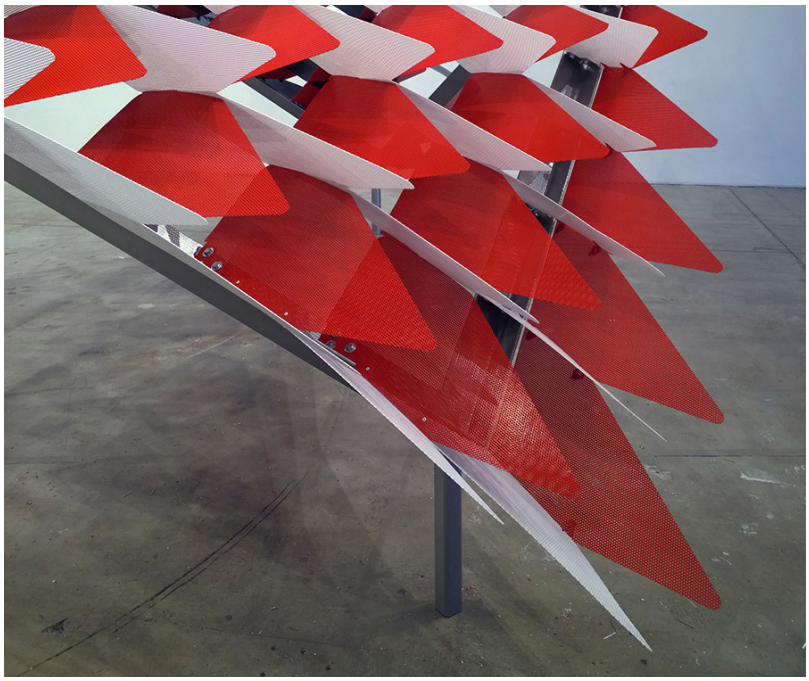
A secondary means of setting up a creative and diverse environment is SCI-Arc's commitment to pursue hands-on design and build experience for both their faculty and student body. The school is in constant motion and production throughout the year spanning from the fall, spring to summer semesters with approximately forty or more events per academic year.

The transfer of technologies from 'thinking to making' is embedded in the curriculum through many focused classes and also reflected in the continuous production of temporary installations and exhibitions. The pedagogical system is setup as a feedback loop which resembles real world problem solving through experimentation in both fabrication and material technologies.

The culture of production is ambitious and transpires from the faculty to the student body and extends even further to invited architects who are constantly encouraged to introduce ideas, thoughts and methods.

Highlights of these design build experiences are the participation in the biannual Solar Decathlon competition, the installation and exhibitions at the SCI-Arc Gallery, the annual Graduation Pavilion, installations for first year students and the introduction of a Robot house and the forthcoming 'Magic' box which will hold one of the largest analog/digital academic based workshops in the nation.

Figure 2: *SCI-Arc,* Downtown Los Angeles



3

Figure 3: *Punk'd* by Heather Flood

THE GALLERY

From Zaha Hadid to Hitoshi Abe and the late Raimund Abraham, the SCI-Arc gallery has been a platform for experimentation for over ten years. It is a curated space that invites locals, guests, and outsiders to import their design expertise, ideas and methodologies within the school.

Intended as a device to enhance cultural discussions around architectural agendas, the projects shown in the gallery range from cultural and technological topics to material research, fabrication and design techniques.

With an average sequencing of three months per show and around four exhibitions per year, the medium sized gallery space has featured some of the most advanced and innovative designers around the globe. Situated almost like a fishbowl in the center of the building, the school population is in frequent transit through, over and next to the space and therefor constantly engaged with the exhibitions.

An important program decision for the curation of the gallery is however, the opportunity for faculty to use the gallery space and showcase their practice research as well. The space becomes a testing ground for young faculty which launches ideas within the school. Several SCI-Arc faculty members such as Tom Wiscombe, Elena Manferdini and Heather Flood have successfully launched innovative and experimentally driven projects and designs inside the gallery space furthering their contribution to the discipline and profession. While Tom Wiscombe's *Dragon Wing* project featured advances in structural properties of cantilevers, Elena Manferdini's *Merletti* installation was an exploration into digital fabrication, multiplicity of components and layering of tectonics.

The work of Heather Flood show in the gallery in spring 2014 introduced both an interest in pattern and material effects. The installation titled *Punk'd* used colored, powder-coated and perforated aluminum fins on a structural grid to produce a design as titled by Domus Magazine at the "intersection of architecture and graphic form."[2]

4

The recursive environment towards the display and production of knowledge inside the gallery is an important educational device towards the student body. While students are not only able to review the featured work, they are also invited to participate in the genesis, production and installation of the exhibitions to fully comprehend the conceptual, logistical and intended ideas of the exhibitors through seminar and other participatory workshops.

GRADUATION PAVILION

The current Graduation Pavilion *League of Shadows* by faculty member Marcelo Spina of the Los Angeles based firm Patterns, was selected through a competition amongst four faculty members competing for the project. The winning scheme by Spina was ultimately developed through a Design-Build seminar and constructed by both SCI-Arc students and professional contractors.

The project was also supported by Art Place with a generous grant providing the opportunity for the space to be co-used by the local community and other events besides the annual graduation ceremony taking place in September.[3]

Graduation Pavilions have traditionally been designed by faculty members over the past decade and built with the support of the student body. The projects slowly grew in size and complexity challenging fabrication techniques, material properties and installation logistics. The early projects by Alexis Rochas featured his research into space frame structures and the connecting joints, while the *Storm Cloud* pavilion led by faculty members Jenny Wu and Dwayne Oyler focused more on material properties such as fabric and aluminum.

SOLAR DECATHLON

SCI-Arc has successfully formed teams and participated in the 2011 and 2013 U.S. Department of Energy Solar Decathlon competitions in Washington DC and subsequently in Great Park in Orange County. In collaboration with mechanical and electrical engineering faculty and students at the California Institute of Technology, the SCI-Arc teams were guided and advised by Wes Jones, Dwayne Oyler and other SCI-Arc faculty members. [4]

Figure 4: *League of Shadows Graduation Pavilion* by Marcelo Spina and Georgina Huljich, PATTERNS

5

Students were involved in the Design-Build process from the first moment and engaged in all aspects of the project from conceptual design, design development, construction drawings, fabrication, and transportation to site installation and guided tours of the project during the exhibition period.

The responsibilities of the students also included active fund-raising, material sourcing, solar research and other design and logistic oriented activities. These first attempts of collaborative work and cross-disciplinary methodologies developed into a strong foundation for the education and experience of each student involved.

The projects were fully developed and built on the SCI-Arc property, transforming the adjacent parking lot into a large area for hands-on experimentation. The 2011 submission named *CHIP - the Compact, Hyper-Insulated Prototype* was an exploration into soft façade and insulation possibilities.[5]

The facade proposal was intended to conserve energy and fabricated out of white recycled vinyl material reflecting as much solar radiation as possible which was then sewed together and ultimately 'draped' around the house. This unconventional façade proposal eliminated the need for extended waterproofing systems found in the conventional building industry. [6]

The knowledge gained through these technologically driven Solar Decathlon projects has a large impact on the continuous career track for the participants enhancing their immediate skill level of building design, sustainable technology and material fabrication.

ROBOT HOUSE

Several years ago, SCI-Arc had already pioneered the development of robotics in architectural education. Dubbed the *Robot House*, the school invested in six robotic arms inside a singular space. The arms are attached to the floors, ceiling and walls opening up the potential for experimentation and testing of new fabrication and material technologies.

Figure 5: *CHIP House* for Solar Decathlon 2011

5

Robotics and the use of a production arm robot generally used in the automotive industry had not been new to the scene. Established schools such as the University of Michigan's Taubman College of Architecture and Urban Planning or Harvard University's Graduate School of Design were previously using a robot arm already to mill foam or wood. However, SCI-Arc's research aim was slightly different, seeking out a series or an idea about robots-in-play. There were suddenly several robots communicating with each other and setting up logistics that went beyond the use of a single robot. This choreography opened up another set of possibilities for the use and production of robot technology.

The school's critical approach towards this technology is the fact that the robots are primarily be used to 'add' material instead to 'subtract' material. With this ideology students were asked to develop scenarios and mechanism to rather design architecture than to build architecture.

Students were challenged to create tools and invent robot 'heads' to make things. The variation of proposals and applications for the heads are endless. While some students are building light sources onto the arms ordering the robot to move in space, other students are placing cameras plugged onto the arm, to record the movement over time, capturing the light drawing transformed into a digital image.

The introduction and use of these new technologies in architectural education continues the tradition for experimentation and innovation in architecture. It is these kinds of explorations which enhance our discussion within the discipline and introduce new technological developments in the profession.

NEW MAGIC BOX

In order to continue the school's role in the promotion of Design-Build education, the administration and leadership at SCI-Arc has proposed a new digital fabrication laboratory commonly referred to as the *Magic Box*. The development of this new facility is according to the administration an "emphasis on learning through building and provoking critical discussions."[7] This new building and addition to the school will

Figure 6: *Public Figure Bench* by Volkan Alkanoglu

7

open in 2015 and not just feature state of the art equipment and technology, but also emphasize the importance of learning and applying craft within the architectural education. The *Magic Box* will host a series of 3d printers including powder printers, ABS printers, clear plastic and paper plotters, large-bed laser cutters, multi-axis CNC machines, vacuum formers, PC labs, workstations, teaching and learning facilities.

As part of the school's strategy to further the faculty's research projects, the instructors are also encouraged by the administration to use the facilities for selected personal research and fabrication work. Projects such as exhibition pieces or cultural devices such as pavilions, benches or temporary structures are produced in the shop and with the support of the existing facilities and infrastructure.[8]

CONCLUSION

What is the "Magic Potion"?

The unique scenario of the educator-as-practitioner model through the engagement of the faculty in both the profession and discipline are the key to understanding the role of SCI-Arc in the academic environment. It provides the desired platform to pursue innovation and experimentation within the curriculum. The integration of professional projects by the faculty side by side with the educational work of the students produced in the classrooms and shop is beneficial for the environment of learning and making.

These syntheses of production between the constituencies of the school enhance the understanding of skill and craft. It implements the critical role of translating from thinking to making, or designing to building.

The school's building facilities provide a series of connected physical spaces and are equipped with updated technological infrastructure. With educational and event spaces such as the gallery, the graduation pavilion and other cross- disciplinary opportunities, the school is able to continue its journey towards an enhancing architectural education with the national and global academic landscape.

ENDNOTES

1. http://www.asterix.com/
2. http://www.domusweb.it/en/news/2014/06/20/heather_flood_punk_d.html
3. http://www.artplaceamerica.org/articles/sci-arc-arts-district-anchor-project-12/
4. http://www.latimes.com/home/la-lh-sci-arc-caltech-house-solar-decathlon-20130926-story.html
5. http://www.chip2011.com/blog/?p=1107
6. http://articles.latimes.com/2011/sep/23/home/la-hm-solar-decathlon-20110923
7. http://www.sciarc.edu/portal/about/magic_box/index.html
8. http://www.ladowntownnews.com/news/sci-arc-to-build-magic-box-facility/article_bbedc2ae-53cf-11e3-8148-001a4b-cf887a.html

Figure 7: *Robot House* at SCI-Arc