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Unquiet Darkness: Institutions, Information and Dissimulation at the Cold Spring Harbour Laboratory

The conduct of scientific research and its architectural expression, in both public and private institutions, has been caught up in larger political and social changes with curious results and evident contradictions. This paper will focus on the case of the most recent additions to the Cold Spring Harbour Laboratory (CSHL) campus on Long Island, constructed in 2009. CSHL is one of the most prominent centres for genetics research in the world. The observations drawn from CSHL are instructive for any critical engagement with the question of informational transparency, institutional change and the means by which architecture may negotiate actual content and formal expression. This is because CSHL is a significant departure from its type – its location is discrete, its laboratories are opaquely subterranean, its campus residential and its architecture nostalgic. Yet, this organisation is subject to legislation that means its financial dealings and its dependency on philanthropic networks are made transparent.
Since the 1950s many jurisdictions in democratic societies have established open information acts that compel public institutions to declare their activities, their financial transactions and the management of personal information. Such juridical compulsion and public demand have seen the transformation of contemporary institutions. Public and private institutions for scientific research have been caught up in this larger political and social change with curious results and evident contradictions. Scientific research depends upon the secure management of contaminants in the laboratory and the exclusion of external interference – vibration, light, dust, uninvited people, political influence, etc. Discrete sites, limited glazing and controlled physical and visual access supported scientific conduct up until the 1970s after which the growing insistence upon public transparency coupled with diminished confidence in scientists and science put pressure on the ways in which scientific institutions were represented rhetorically and architecturally. Changes in funding, too, have meant that scientific organisations have come to depend on public support and private philanthropy for which secrecy and invisibility may be seen as an obstacle. The need to convey a commitment to informational transparency has become a strong architectural driver with extensive glazing the go-to technique by which scientific organisations manage the contradictory needs of security and apparent openness.

In their seminal text, “Transparency: Literal and Phenomenal” (1955), Colin Rowe and Robert Slutzky observe that being able to see through a material has accrued a moral dimension. They note that transparency is that:

[W]hich should be easily detected, perfectly evident; and an attribute of personality – the absence of guile, pretence or dissimulation; and thus the adjective transparent, by defining a purely physical significance, by functioning as a critical honorific, and in being dignified by far from disagreeable moral overtones; is a word from the first, richly loaded with the possibilities of both meaning and misunderstanding.¹

Rowe and Slutzky’s essay explores a third aspect of transparency, central to modernism. They identify this aspect as phenomenal and spatial. The relation that is assumed to operate between the phenomenal and spatial is analogical. That is, that one is analogous with the other: that architecture might stand in place of a phenomenological disposition or an ethical stance. For Rowe and Slutzky a relation between actual content and formal expression was assumed. Informational transparency in modernism was seen as a moral good that was conflated with the material transparency of glass. Anthony Vidler and others have since pointed to the reflective and refractive qualities of glass and revealed the desires at work in the transparency metaphor.² This paper will not revisit this history explicitly, but sets out to understand how informational transparency might be understood in architectural examples that productively engage guile, pretence or dissimulation.

This paper investigates the most recent additions to the Cold Spring Harbor Laboratory (CSHL) campus on Long Island, constructed in 2009. CSHL is focused on cancer research, research on the brain, and the genetics of plant development. Its close association with
Nobel laureate James Watson, who became its director in 1968, means that it is one of the world’s most prominent centres for genetics research. CSHL is instructive for any critical engagement with the question of informational transparency, institutional change and the architectural negotiation of content and formal expression. This is because CSHL is a significant departure from its type – its location is discrete, its laboratories are opaquely subterranean and its architecture nostalgic. Unlike other organisations for scientific research, CSHL is a private, not-for-profit organisation and as such is subject to legislation that means its operations are unusually transparent and, with a little sleuthing, the influence upon its architecture and its research activities of its benefactors can be revealed.

**Informational transparency**

As a private, non-profit organisation, since 2009, CSHL has had to comply with US laws related to tax-exemption and annually complete the Internal Revenue Service Form 990-PF. The form requires the disclosure of income, including grants, expenditure, any Conflicts of Interest members may have and the compensation of senior managers. Form 990’s are available for public perusal. In them we learn that in 2011 the laboratory had an income of US$210 million, US$54 million of which was drawn from government grants. This means that over 50% of its research funding is from private and unrestricted sources – enabling them a degree of scientific freedom. In 2012 the CSHL employed 1256 people and had salary costs of around US$70 million a year. Expenses in 2010 were US$143 million, of which US$906 204 was in architectural fees to Centerbrook Architects, a practice founded by Charles Moore. In 2011 CSHL spent US$247.8 million on buildings and US$67 million on equipment. It borrowed US$55 million for the construction of the new research buildings in 2009.

CSHL also must lodge an Annual Report and this details, in a journalistic and optimistic manner, its research endeavours and the consequences of its discoveries. In one laboratory, we learn, the scientists are trying to understand the genetic basis for neuropsychiatric disorders such as Tourette syndrome, Attention deficit hyperactivity disorder and Obsessive Compulsive Disorder (OCD). In 2013 they used “deep brain stimulation” to treat a (single) patient with OCD, reporting very good results. Such experimentation is controversial and potentially undermines established psychotherapeutic and pharmaceutical treatments for such illnesses. The CSHL is also undertaking research that has been the subject of public opposition such as the in vitro identification of candidate genes for disorders such as autism.

The CSHL is compelled by law to publish its financial activities, by scientific protocols to publish its research and by its need of public support to engage in education and persuasion. For 26 years the CSHL has operated a program of education in genetics to high school children and their teachers through in-house summer camps and workshops in its DNA Learning Center (DNALC). Additionally, the CSHL runs the Watson School of Biological Sciences, with around ten students annually receiving their doctorates through the program. Its Banbury Centre is focused on workshops and conferences and in 2012 over
500 participants attended special meetings on focused topics.

There is also much historical information that is generated by the CSHL for its audiences closer to home and which tells the entwined narrative of local philanthropy and scientific discovery. This includes two coffee table books written by James Watson’s wife Elizabeth and published by the CSHL Press, *Grounds for Knowledge* (2008) and *Houses for Science: A Pictorial History of Cold Spring Harbor Laboratory* (1991). Grist and woollen mills, barrel factories and shipyards occupied the site in the eighteenth century. Between 1836 and 1858 whaling became the main industry. In 1859, the discovery of petroleum in Pennsylvania precipitated the end of the whaling industry. The same year saw the publication of Charles Darwin’s *On the Origins of Species*. These unrelated events led to the establishment of a seaside zoological station in 1890. Heirs of the Jones family whaling fortune had established the Wawepex society to manage their real estate and to invest funds in scientific research. The Wawepex Society donated land for a Fish Hatchery and Biological Laboratory at Cold Spring Harbor to the Brooklyn Institute of Arts and Sciences in 1889.

Within a few years the Bio Lab, as it was called, had new premises in a timber building in the Colonial Revival Style and also occupied one of the abandoned warehouses. It was in this same decade that New York’s wealthy industrialists built their suburban mansions along Long Island’s North Shore coast – a place and a period immortalised in F. Scott Fitzgerald’s 1925 novel *The Great Gatsby*. The local community assumed control of the Bio Lab under the aegis of the Long Island Biological Association (LIBA) in 1924 and its board members included such luminaries of New York society as William K. Vanderbilt, Childs Frick, Louis Tiffany and Henry W. de Forest. Most of these LIBA directors had residences in the area and a highlight of the annual Symposia, well into the 1960s, was that “speakers went to the homes of LIBA members for dinner parties that brought them together with prominent figures in the local community.”

Research in genetics was a focus from the very beginning. Charles Davenport, a zoologist, was Director of the CSHL from 1904 to 1941. The information produced by the CSHL on
Davenport’s tenure is fascinating. Davenport was an advocate for eugenics – the improvement of the human species by ‘discouraging’ reproduction by persons having genetic defects (negative eugenics) coupled with encouraging reproduction by persons presumed to have desirable inheritable traits (positive eugenics). He founded the International Federation of Eugenics Organisations (IFE) in 1925, with Eugen Fischer as chairman of the Commission on Bastardisation and Miscegenation (1927). Davenport’s claims about the effects of interbreeding, made in 1917 while at CSHL are blatantly racist, for example, “one often sees in mulattoes an ambition and push combined with intellectual inadequacy which makes the unhappy hybrid dissatisfied with his lot and a nuisance to others.” Davenport was worried about interbreeding and immigration in the USA and warned, “[t]his country is in for hybridization on the greatest scale that the world has ever seen.” The CSHL’s homepage makes little mention of this awkward aspect of its history, merely describing the appointment of Milislav Demerec in 1941 as Director as signalling “a new era of genetics research.” Elizabeth Watson describes Davenport’s failure “to disassociate himself from the overt racism” of the Eugenics Record Office at CSHL and its director, Henry Laughlin, as merely an “error of judgment.”

It was at the CSHL that James Watson first described publicly the structure of DNA in 1953 at a symposium on viruses. This information is celebrated by the CSHL. Yet Watson, too, has been embroiled in controversy over racist (and sexist) views. While on a book tour to the UK in 2007 the octogenarian was quoted in The Independent as saying he was “inherently gloomy about the prospect of Africa [because] all our social policies are based on the fact that their intelligence is the same as ours.” He went on to say that despite the desire that all human beings should be equal, “people who have to deal with black employees find this not true.” The CSHL made a public show of disowning Watson’s comments and suspending him as Chancellor but, privately, as the IRS Form 990 reveals, he remains a valued employee. In 2012 Watson’s salary from the CSHL as its Chancellor Emeritus, on top of the home he is provided on campus, was US$384,238. Perhaps this too is merely an ‘error of judgement’.

Social refraction

While the location of the laboratory at Cold Spring Harbor is an historic accident it has continued to benefit from being amongst New York’s most expensive real estate. Long Island’s most exclusive towns are a second home to many of New York’s wealthiest individuals. It is also, despite Davenport’s nightmare of a nation of mixed race people, one of the USA’s whitest regions. The population of Cold Spring Harbor is 97.03% white, compared with 65.7% for New York State as a whole. It is this particular constituency – descendants of the original board of the LIBA – that support CSHL’s advancement and whose involvement is revealed in its Annual Reports and Form 990s.

Amongst its most generous donors – those who have given more than US$5million to the CSHL – three are on the Board of Trustees: Marilyn Simons, Jamie Nicholls, and Lindsay Goldberg. Simons and her husband Jim made their fortune through a hedge fund company that uses his mathematical expertise and customised software to profitably invest its clients’
funds. Their daughter was diagnosed with autism at the age of six and the Simons have been instrumental in expanding this area of research at CSHL.18 David Koch, New York’s richest resident, is a donor, yet, curiously also supports The Americans for Prosperity group advocating for a single-payer Health care system in the US. The Americans for Prosperity group also fund the Tea-Party movement – the same group that deplores Obamacare.19 And yet, Koch gave $10 million to the CSHL in 2009 to support its campaign for expansion.20

The CSHL courts donors through an annual gala dinner (ticket prices start at US$2000 and go up to US$12000) at which the ‘Double Helix Medal’ is awarded to “individuals who have positively impacted human health by raising awareness and funds for biomedical research.”21 Board members Marilyn and Jim Simons and David Koch are recipients of this medal. It is, as F. Scott Fitzgerald might say, an intimate, large party. The event attracts celebrities, scientists, philanthropists and New York Society – Craig Venter, the first to sequence the human genome, attends the gala dinner, as does architect Richard Meier, whose houses dot the Long Island coast.22

New York’s Society pages are unusual archives for architectural historians and theorists, but it is here, through the figure of Jamie Nicholls, that we can better understand the laboratory’s social milieu and its consequent architecture. Nicholls, elected Chairman of CSHL’s Board of Trustees in 2010, is one of the plus US$5 million donors. She and her financier husband live at Mill Neck in a mansion built in 1936 with eleven bathrooms on 5.2 acres and purchased for US$8 million in 2005, just five kilometres from CSHL.23 Nicholls’ great grandfather, Joseph Treneer, invented Alka-Seltzer, a pain reliever launched in 1931.24 Her late father, Richard Hall Nicholls, “the tax lawyer’s tax lawyer” specialised in tax-exempt bonds, a profession that made it possible to be an “avid sailor, skier and swimmer”, “a former Captain of the Amherst swimming team” and “long time member of the Stamford Yacht Club.”25 He died in 2009 after a ten-year struggle with an incurable form of cancer.26 Nicholls is also on the Board of Memorial Sloan-Kettering Cancer Center. Nicholl’s mother, Judy Cormier, has an ‘appointment-only’ interior decorating business. Cormier’s website explains that, “[a]s a student of Art History at University, Judy is highly knowledgeable about the past and embraces contemporary styles with an eye on yesterday.”27 Cormier’s work is the style favoured by the American journal Architectural Digest and Cormier herself is a regular attendee of the CSHL’s Double Helix Awards dinners.28

We take this detour through the family tree of CSHL’s Board Chair in order to understand the personal character of the philanthropic community upon which the institution depends. It is made up of privileged and well-educated individuals from New York Society. Many are drawn to donate time and money by their personal experiences of illnesses targeted by the laboratory’s researchers. Equally, we argue, they identify the organisation as one of their own, much as they might their yacht or country club. In this aspect the architecture of CSHL makes a vital and reassuring contribution.
Architectural opacity

Elizabeth Watson describes the first purpose-built research facility at CSHL, the Carnegie Institution’s Station for Experimental Evolution of 1905, as “a Mediterranean variant of the Second Renaissance Revival style.” An eclectic melange of the vaguely classical, it sets the tone for subsequent buildings. In 1974 Charles Moore undertook the renovation of a nineteenth-century farmhouse for the Watson family. The successor firm to Moore Grover Harper, Centerbrook Architects, have designed several conversions of the original buildings for laboratory and ancillary use, along with new houses and laboratories, a wastewater treatment plant and even a finial modelled on an adenovirus. Where Moore’s early interventions were witty – his Sammis Hall (1981) is purportedly modelled on Palladio’s Villa Poiana of 1549, albeit in stucco – Centerbrook’s projects have become increasingly eclectic and nostalgic. We are told, a new house “took its cues from the client’s affinity for elegant yet comfortable English Regency houses.” Their design for the Computational Neuroscience Laboratory recalls the “novelty siding of the original cabins” and is roofed in copper foil shingles. Centerbrook’s new buildings for CSHL work hard to conceal their purpose, youth and bulk. The Beckman Laboratory (1981) “appears to be smaller that it really is due to its dark brick exterior” and sports “extra large windows that make it appear smaller when viewed from a great distance.” Elizabeth Watson optimistically proposes that it “could be mistaken for a grand waterview-endowed Long Island mansion design in classical turn-of-the-century-style.” “Can’t repeat the past!” Gatsby cried incredulously, “Why of course you can!”

The first major expansion of the infrastructure of the CSHL took place in 2009 with the opening of the Hillside Laboratories at a construction cost of US$100 million, 80% of which came from private donors and philanthropic foundations. Housing about one-third of its research personnel, below ground the new laboratories are a single interconnected structure. Above ground six discrete buildings, vaguely resembling bloated versions of the structures that composed the original whaling village, are clustered around a multi-level courtyard. Each building is painted a different colour – sienna, sage, olive, umber, yellow ochre – a technique the architects have used before to disguise size. The roofs are steeply pitched and punctuated at each end by vertical ‘chimneys’ that conceal the necessary vents and risers of the hidden laboratories. Centerbrook, who themselves inhabit a historic compound of nineteenth-century mill buildings, call this architecture ‘American place-making’ but there is something particularly universal to this retro-village chic. It is the type of retrogressive architecture one might imagine Prince Charles advocating and the Krier brothers constructing. Randal Jones of CSHL’s facility department explains that the design “was intended to recall an alpine village. This is enhanced by the severely sloping site, the use of artificial pavers in the courtyard spaces, and a towering central exhaust stack that mimics the church bell tower common to village squares.” In 2009 a New York Times reviewer suggested of the CSHL that “[a]n architectural sleight of hand has disguised the new labs as a miniature Bavarian hilltop village.”

Such vaguely ‘classicist’ architecture and ‘new urbanism’ is common trade on America’s
South and East Coast for houses, clubs and educational buildings, but an anomaly in buildings for cutting-edge science. The forces that would lead to one of the world’s most advanced research centres in the biosciences to inhabit a pseudo-Bavarian-alpine-whaling village are patently clear. That the campus is listed on the National Historic Register and the location of new building is constrained by local zoning regulations does not entirely account for its appearance. In a series of negations, Bill Grover of Centerbrook suggests “[w]e didn’t want to build something that would make it no longer look like a small whaling village.”\(^{41}\) Gatsby says much the same but in much clearer terms: “So we beat on, boats against the current, borne back ceaselessly into the past.”\(^{42}\)

The architectural indulgence here is fascinating. The idea that architecture should express exactly what is going on, through, say transparent glass making visible the laboratory activity, mistakes the subtle ways in which representation actually operates. It was a point taken up by Vidler in *The Architectural Uncanny* of 1992. Vidler would note the more contemporary discrediting of transparency “in its place, opacity, both literal and phenomenal, became the watchword of the postmodern appeal to roots, to tradition, to local and regional specificity, to a renewed search for domestic security.”\(^{43}\) In these terms the opacity of the CSHL is unmistakable. What is also unmistakable is the relation between the actual content and the formal expression of the architecture. The buildings of the CSHL might not be mistaken for a high-tech biomedical laboratory. But likewise, these buildings are never mistaken for a nineteenth-century whaling village. We know it is theatre – a form of tableau vivant. There is a composing of the silent and motionless that speaks loudly of conservative values. There is here the ‘unquiet darkness’ that Fitzgerald associates with the perverse indulgences of the American dream.\(^{44}\) Despite the motionless theatrical character of CSHL, this tableau, there is a raw and incorruptible force here. An unquiet. It is the potency of biomedical experiment and exploration. Vivant.

There is no sleight of hand here. There is no alignment between the actual content and the formal expression and, therefore, the relation between the two is clear. It is distinct in its dissociation. A sleight of hand would suggest an attempt to disguise or to trick. Rather, the presence of what Rowe and Slutzky might call ‘guile, pretence or dissimulation’ is indeed highly productive and particularly obvious. The lie here is clear and apparent. What we get in this architecture is an expression that is as transparent as any Annual Report, IRS Form 990-PF or *Architectural Digest* feature article. The CSHL is an architectural expression of the disconnection between the layers of information and economies that constitute the contemporary laboratory.

**Conclusion**

Though there is no sleight of hand here, there is, of course, the management of rhetoric – not in rhetoric but in the most transparent terms possible. If the craft of the contemporary bio-medical laboratory has been one dedicated to the rhetorical drives of community, communication and transparency; then the CSHL is equally dedicated to these points – but not rhetorically. The ‘dissimulation’ is patently clear. The oddity of the layers of information,
dollars, hedge funds, galas, healthcare, retrogressive interior design chic, disease, death, genes and architecture is that they don’t collapse together seamlessly here. There is no common denominator that plays itself out in the singular architectural expression. In a sense this architecture becomes a very open expression of the real disjointedness. The reality of the contemporary laboratory isn’t hidden here – it’s expressed here – perhaps more clearly than in any other laboratory production of the twenty-first century. The CSHL is being what it is: a literal village with a population of employees; an obvious whaling station without whales; an open subversion; a conservation of the new; a very unquiet darkness.

3 Years 2010, 2011 and 2012 are free, access to previous years are at a cost of US$125.
5 What is also discernible in the Annual Report is the political positioning and ideologies being pursued by the CSHL. Bruce Stillman’s ‘President’s Report’ in the Annual Report for 2013 is unequivocal in stating his disappointment with the federal funding of research, which he declares is “not keeping pace with the cost of doing science” and suggests that in early 2014 “Congress failed to engage in a full-scale budget debate about the role of American science in promoting economic development.” Stillman laments that “[a]dult scientific literacy in the United States is far below a level befitting a nation leading the world in scientific research and technological development.” Cold Spring Harbor Laboratory, 2013 Annual Report, 2.
12 Watson, Houses for Science, 75.
13 Milmo Cahal, “Fury at DNA pioneer’s theory: Africans are less intelligent than Westerners,” The Independent (London), October 17, 2013.
19 For Žižek: “Here we encounter Tea Party ideology at its purest: the majority wants to have its ideological


26 "Deaths.”


39 Randal Jones, email correspondence with Sandra Kaji-O’Grady, April 28, 2015.


41 Tarquinio, “Long Island Laboratory’s Expansion Hides in (and Under) Six Buildings.”

