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Talking with Alfred

Steven Shapin

- *Tuxedo Park: A Wall Street Tycoon and the Secret Palace of Science that Changed the Course of World War Two* by Jennet Conant

Alfred Lee Loomis was well connected. Some of his most valuable connections flowed from the accident of a fortunate birth. On his father's side, the family came to New England only a few ships after the *Mayflower*, and Loomis's father was a wealthy Gilded Age New York physician who combined fashion, philanthropy and philandering in ways that could have made him a character in a Henry James novel. More consequentially, Loomis's mother was a Stimson, of the patrician New York banking and professional family. Loomis was extremely close to his older cousin Henry Stimson, who, after establishing himself as a corporate lawyer to the East Coast establishment during the 1920s and 1930s, served in the cabinets of five US presidents, and was secretary of war under Taft, Roosevelt and Truman. Like his cousin (and both Presidents Bush) Loomis went to Andover and Yale, later moving on to Harvard Law School. He started his legal career as a clerk in Stimson's New York law firm, subsequently acting as his cousin's financial adviser, making him even richer through excellent stock-market tips. During World War Two, Loomis was described as Stimson's unofficial 'minister without portfolio', connecting him efficiently with the worlds of business and finance. His marriage in 1912 to Ellen Farnsworth, 'the prettiest girl in Boston', brought him additional Brahmin connections, and their doings in high society were conscientiously chronicled in the quality New York papers.

Loomis was also very wealthy. After Harvard, his spell in the Winthrop & Stimson law firm and several years as an army boffin helping develop new forms of artillery, he fetched up on Wall Street,

where he quickly made an immense fortune underwriting the bonds that financed America's burgeoning electric utilities and took an active part in shaping the institutional geography of the electric power industry. He was, Jennet Conant writes, 'a corporate capitalist of the first order'. In 1928, Stimson warned his cousin about the massive speculative bubble that was developing in the stock market, and particularly in the electric utilities, but he was preaching to the choir. Loomis had already come to the same conclusion, and in the first few months of 1929 he liquidated all his stocks, prudently turning them into Treasury bonds and cash – just before the Great Crash of 24 October. That was the fortune he lived on for the rest of his life, and it was quite big enough to allow him to retire at the height of the Depression, aged just 46.

Loomis was very posh, too. His social network centred not on Wall Street but on Tuxedo Park, an exclusive (as in no Jews, few noobs) development about fifty miles north-west of Lower Manhattan, where he established his family during his bond-dealing days. (The 'tuxedo' was named after the development, the dinner jacket being its male residents' iconic evening wear.) One of America's original 'gated communities', Tuxedo Park was ringed by an eight-foot-high barbed-wire fence to 'keep out the riff-raff', though the astronomical prices for Italianate palazzi and mock French châteaux did the job quite well enough. Handsome, dashing, well-coiffed and supremely well-tailored, Loomis kept a chauffeured Rolls, and he and Ellen dressed for dinner even when there was no company. In the early 1930s, as the unemployed were selling apples for a nickel in Wall Street, Loomis financed and skippered a no-expense-spared, state-of-the-art America's Cup yacht, which, nevertheless, finished dead last in the final Newport trials.

But that extravagance was as nothing compared to Loomis's development of Hilton Head Island, South Carolina. On land that General Sherman had given to freed slaves during the Civil War, he constructed an opulent sporting preserve, where he 'played the country squire' and treated Yankee visitors to dinners of Rabelaisian vastness: 'The big kitchen sent out a tempting fragrance of roast turkey and venison, of duck with orange sauce made from bittersweet

island oranges, Carolina shrimp pie, oyster stewed with crisp bacon and onions and served with fluffy rice. There was crunchy benne seed candy in the crystal dish, or perhaps a plate of pecan pralines, with the nuts fresh and crisp from island trees.'

Loomis had a touch of Jay Gatsby about him, with a clever side which he kept from his Social Register friends and which was walled-off even from his wife. In itself, cleverness was no more valued by the American aristocracy than by the English, but, even more oddly, his cleverness did not express itself in such politely approved forms as artistic connoisseurship or dabbling in belles-lettres. He wanted to be, if not a physicist himself, then at least well thought of by physical scientists and of use to their researches. Impressed by Lord Rayleigh's country-house laboratory at Terling Place in Essex, Loomis established a superbly equipped laboratory in an annexe to his house in Tuxedo Park, and there began to entertain a succession of eminent, often émigré, often Jewish scientists whose appearance shocked the neighbours: 'strange outlanders with flowing hair and baggy trousers'. Over the years, the roll-call of physicists who either visited or worked in the Loomis Laboratory included Enrico Fermi, Niels Bohr, Werner Heisenberg, Robert Wood, E.O. Lawrence, George Kistiakowsky, Leo Szilárd, the Compton brothers (Arthur and Karl) and Albert Einstein. One newspaper columnist observed Loomis's odd form of philanthropy: 'In Tuxedo Park, his home, he has built the Loomis Laboratories, and any scientist who wishes to devote a week to a year of study to pure science (commercialism is as far from the minds of the true scientist as it is from the heart of a Rembrandt) is welcome to remain there as Mr Loomis's guest.'

The scientists were unaccustomed to the Loomis standard of hospitality. Scraped off the Tuxedo Park station platform and loaded into the Rolls, the shabby scientists not only had the finest scientific instruments at their disposal ('a much better laboratory than any university laboratory at that time – better equipment, more expensive equipment', one scientist said in the late 1920s), they also had high-end nosh, prepared by a character reputed to be a younger son of the Duke of Northumberland: 'English country squire food', an astonished Russian émigré scientist noted, 'English breakfasts and

small fried filet steaks for lunch, the beef so well aged that they reeked to high heaven even after frying, but melted in the mouth.' To Einstein, whose dietary habits were less luxurious and who did not dress for dinner, the Loomis Laboratory was nonetheless a 'palace of science'.

Loomis was an excellent keeper of secrets. Later on, his top-security clearances, as well as his abilities and contacts, made him one of the inner circle both in the Manhattan Project, which built the atomic bomb, and especially in the MIT Radiation Laboratory, which constructed the militarily vital distant-object locating systems, radar and loran. But probably his best-kept secret concerned his private life. From 1938, Loomis conducted an affair with Manette Seeldrayers Hobart, the luscious young Belgian wife of his good friend and laboratory major-domo, developing a signalling system across Tuxedo Lake to notify her when the coast was clear. 'I think it was about great sex, which would have been a scarce commodity in his first marriage,' his grand-daughter said. The Loomis marriage was, indeed, quite horrible. As the Victorians would have said, Ellen was delicate, not actually sick but sickly, highly-strung and prone to nervous collapses. Even before he began the affair with Manette, Loomis had encouraged his wife to take as much bed-rest as possible, ideally in a sanatorium far away from Tuxedo Park, and later he tried to have her permanently committed, an action for which his eldest son never forgave him. The divorce came in 1945, and his marriage to Manette followed hours later in Carson City, Nevada. New York society was appalled and instantly cut him dead: 'He was like a non-person after that. He just disappeared from society,' one socialite said. Manette's injured former husband took it badly, becoming a virtual hermit in his house in Tuxedo Park. Alfred dismantled the laboratory and sold the big house (which was ignominiously converted into condos, Tuxedo Park itself having fallen on evil times), and he and Manette soon decamped to the Hamptons on Long Island, where he lived a relatively private life until his death in 1975.

So far as Ellen and his society friends were concerned, science, too, belonged to Loomis's private life. He was an excellent compartmentaliser. The annexe housing the laboratory was off-limits

to the Tuxedo Park set. He didn't talk science with society and he didn't talk society with the scientists. Once, he let his guard slip, offhandedly seeming to boast to the physicist Luis Alvarez that he had appointed Wendell Willkie, the 1940 Republican presidential candidate, to the board of one of his electricity companies. As Alvarez told the story, Loomis 'was immediately and obviously embarrassed by what he had said, and it would be another twenty years before he made another reference to his financial career in my presence'. While Loomis was comfortable with his role as a corporate capitalist, he nevertheless considered science, as Conant writes, 'a higher calling'. His grandson said that 'while he may have been born a WASP, he didn't think that way.' An ardent Anglophile, as the saying is, Loomis dressed British, but tried to think Yiddish. He retired from Wall Street because, his daughter-in-law observed, he 'just totally lost interest in business. He felt he had enough money to do whatever he wanted, and what he wanted to do was science.'

Loomis's own work resulted in about thirty scientific papers and at least four patents, but while it is clear that his scientific abilities and judgment were at times taken quite seriously by the professionals, Conant stretches to make a case for the intellectual significance of his researches. He was a talented gentleman-amateur and dilettante ('the last of the gentleman-scientists'), in an era from which the type had almost completely disappeared: inspired in his scientific instincts, able to inspire others, but lacking the focus and *Sitzfleisch* to see things through himself. When Yale gave Loomis an honorary degree in 1933, and called him a '20th-century Benjamin Franklin', one may suppose that the Development Office had a hand in the hyperbole. In the 1920s and 1930s, Loomis directed laboratory work on a mixed bag of problems in applied physics, including the precise measurement of time, the effect of sonic vibrations on living cells, and the development of an early form of the electroencephalograph.

In 1940, a Princeton chemist, William Richards, who had worked in the Tuxedo Park laboratory, committed suicide just before the sensational publication of *Brain Waves and Death*, a roman à clef he had written based on what was going on at the lab. Even though suicide ran in the family, the book so embarrassed Richards's

brother-in-law, the chemist and Harvard president James Bryant Conant, that the Conant family used its considerable influence to buy up as many copies as possible and to make sure the incident was effectively covered up. (There is still no copy of the book in the vast Harvard library collections.) Loomis himself threatened a libel suit. Worse still, found among Richards's papers after his death was a story destined for publication that revealed the early research on nuclear fission that was then being actively discussed at Tuxedo Park.

Until the outbreak of World War Two, Loomis's science was largely an expensive hobby. But now his skills as an organiser, fixer and consummate networker became invaluable to America's massive military mobilisation of science and technology. He was the ultimate insider: he knew the scientists personally; he knew how to make large-scale organisations work; and he was supremely well connected to inner circles in government, business, finance, academia and the world of philanthropic foundations. He was a great motivator. It was Loomis who lit a fire under the previously apolitical E.O. Lawrence and convinced him of the importance of military research. As Alvarez wrote, Lawrence had never said 'anything that indicated that he was seriously concerned with the war until he got back from talking with Alfred, at which point he was just fascinated by what he had heard about what could be done scientifically if you had the motivation and the money and the resources' – all of which Loomis had in abundance.

Loomis really came into his own in 1940, when he was appointed chairman of the microwave committee of the National Defense Research Committee, the main co-ordinating body for America's wartime mobilisation of science. It was Loomis who got the 'Rad Lab' located at MIT, facing down the opposition of Bell Labs and other industrial firms who feared non-profit academic competition in what they saw as essentially an engineering and production problem. He was, after all, a member of the MIT governing board and a close friend of the university's president, Karl Compton. When the Tizard mission arrived from Britain bearing the cavity magnetron that was at the heart of radar's secret, Loomis popped into Stimson's Washington office to make sure the secretary of war properly

appreciated the huge significance of the device, and Stimson in turn contacted the army chief of staff, General George Marshall, so that he could be briefed by his cousin. That's the kind of access that shaved weeks off the development of radar when even small delays cost lives. Loomis browbeat industry representatives from Bell, RCA and Sperry to deliver contract work on a timescale they initially could not even conceive. If there were bureaucratic obstacles to be overcome or red tape to be cut, Loomis would make a few phone calls to his contacts and that would usually be an end to the matter. The scientists built radar, but he assembled the human and material resources which allowed them to do so.

Even in the early years of military mobilisation, when the Federal government had accepted the principle of becoming the ultimate paymaster for science and technology relevant to the war effort, money remained scarce. When scientists were scraping about for funds to finance early work on fission or microwave detection systems, Loomis emerged as the most effective fixer. Spurred on by Stimson, he was instrumental in getting the Rockefeller Foundation to provide over \$1 million for Lawrence's 184-inch cyclotron at Berkeley, and then he took Lawrence by the hand around an array of Wall Street and engineering firms to knock down the price of steel, copper and other matériel. (It later emerged that Loomis had a controlling interest in several of these firms.) He was so well networked in contemporary high-tech business circles that he could walk into the General Electric labs and get whatever equipment he and his associates needed.

In crucial instances, Loomis himself acted as personal patron. Lawrence had a private fund that allowed him to circumvent university bureaucracy to support research in which he was interested, and it was generally believed that the cheques that went into that fund were written by Loomis. In the 1930s, he had supplied funds for Harvard research on brain-waves, and in 1940 he wrote a \$5000 cheque to jump-start Harvard's work in nuclear physics. When the resources and speed of action of the NDRC proved inadequate for the support of early radar work at MIT, Loomis wrote further personal cheques, and still more cash went for stipends to

émigrés who might be useful in nuclear physics. Leo Szilárd pestered Loomis to bankroll fission research when the government was slow to act, and it's possible that Loomis did so. (It is likely that he supported Fermi's work at the same time.) That's to say, a significant amount of the early science leading to the technologies that 'won the war' and 'made the modern world' was supported through pre-modern patterns of personal patronage that might have been familiar in the Florence of the Medici.

Jennet Conant wrote *Tuxedo Park* partly as a probe into skeletons in her own family's closet. William Richards, the chemist who killed himself just before the publication of his exposé of the Loomis Laboratory, was Jennet's great-uncle, and James Bryant Conant, who helped hush up the scandal, was her grandfather. 'At funerals,' she writes, 'usually held at the family plot in Mount Auburn Cemetery in Cambridge, Massachusetts, we would go hunt for [Richards's] grave and that of his brother, who also committed suicide. My father always joked that every good Boston family should have a pew at St Trinity's, a plot at Mount Auburn's, and a gurney at McLean's (the local nuthouse).' And, she might have added, at least a distant relation in the cabinet. *Tuxedo Park* is the compelling story of a linked set of rich, brilliant, powerful and deeply dysfunctional New England families, their internal workings and the ramification of their networks of blood, money and friendship across the national stage.

At the same time, it is a lesson in how social networks operated in the making of late modern institutional arrangements, and particularly in the origins of the military-industrial-academic complex. Loomis was a node in a series of networks – university science, finance, government and the Pentagon – which rarely overlapped before the middle of the 20th century. There were very few individuals who had the capacity to connect these networks, but Loomis was one of them. He knew the minds of generals, financiers, cabinet ministers, captains of industry, scientists, engineers and university administrators, and he knew how to translate between them. He knew what doors to open, how hard to push on them, what to do once inside, and how to exploit the connections he made there to produce new institutional configurations. The networks of power were woven

with the fibres of familiarity. They still are.

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