

## Howard Hughes: A chronology



Born in Texas with a silver spoon in his mouth, Howard Hughes spent his young adulthood as a swaggering movie mogul and daring aviator. This chronology reveals all the American billionaire's triumphs and disasters, then charts his descent into madness, squalor and death.

1905-1949 | [1950-2004](#) | [Find out more](#)

### 1905

*24 December:* Howard Robard Hughes Jr is born in Houston, Texas. His mother is Allene Gano Hughes and his father is Howard Robard Hughes Sr, founder of the Hughes Tool Company and inventor of the 'rock eater', a drill bit that revolutionised oil drilling and was the source of his wealth.

Hughes Jr's mother disapproves of his making friends because she believes other people are disease-carriers. If her son snuffles or coughs, she rushes him to a doctor and lavishes attention and sympathy on him.

### 1917

One of the US's worst race riots breaks out in Houston, Hughes' home town, leaving 17 dead. Some believe that this made the future tycoon a racist.

### 1922

*29 March:* Hughes' mother dies.

Hughes attends the Thacher School in Ojai, California, 85 miles north of Los Angeles. He also spends time with his uncle Rupert Hughes, a screenwriter for Samuel Goldwyn, who inspires his later interest in film-making. He never graduates from high school, but his father arranges for him to sit in on classes at Cal Tech by donating money to the university.

### 1923

Hughes returns to Houston and enrolls at the Rice Institute (now Rice University).

### 1924

*14 January:* Hughes' father dies.

The 19-year-old Hughes, having inherited much of the family estate, drops out of the Rice Institute.

His uncle Rupert begins to supervise Hughes' share of the estate plus his interest in the Hughes Tool Company, a duty that is supposed to last until the younger Hughes is 21.

Family quarrels result in Hughes instructing company lawyers to buy out his relatives, all of whom he has alienated.

*26 December:* A Houston judge and friend of Hughes' father grant Hughes legal adulthood, allowing him to take over the tool company.

## **1925**

Hughes writes a will that, among other things, provides for the creation of an institution to support medical research.

*1 June:* Hughes marries Houston socialite Ella Rice. They move to Hollywood so that he can pursue his interest in making films. He keeps Ella isolated at home for weeks on end.

Hughes hires Noah Dietrich, a former race-car driver turned accountant. Most experts agree that it is Dietrich who turns Hughes into a billionaire. Says Robert Maheu, later Hughes' chief adviser, 'He was delivering Howard profits of \$50 to \$55 million a year. Big bucks in those days.'

## **1927**

Hughes and his team of Noah Dietrich (head of the movie subsidiary of Hughes Tool Company) and director Lewis Milestone make the silent comedy *Two Arabian Knights*.

Hughes meets film star Billie Dove ('The American Beauty') and becomes obsessed with her. She is married to (though separated from) director Irwin Willat. It is rumoured that Hughes pays Willat a huge sum – quoted variously as \$35,000, \$300,000 and \$325,000 – in return for Willat agreeing to a divorce (which is finalised in 1929). Then Hughes buys out Dove's contract from First National Studios and signs her to his own studio, Caddo Pictures, for \$50,000 a movie. However, both films in which she stars for him – *The Age of Love* and *Cock of the Air* – are financial failures, and by the time the second reaches the screen in 1932, Hughes has lost interest in Dove and they part.

## **1928**

The film *The Racket*, produced by Hughes, is nominated for an Oscar.

His marriage failing, Hughes becomes involved with a string of actresses, which would eventually include Jean Harlow (the star of *Hell's Angels*, see below), Bette Davis, Katharine Hepburn, Ava Gardner, Jane Greer, Lana Turner, Rita Hayworth and Janet Leigh, among many, many others. An equal opportunities lover, he was also romantically linked to Richard Cromwell, Errol Flynn, Cary Grant, Tyrone Power and Randolph Scott.

## **1929**

Hughes is divorced from Ella Rice. She returns to Houston.

*Two Arabian Knights* wins an Oscar for best director of a comedy picture.

## 1930

Hughes writes and directs *Hell's Angels*, which is about World War I aviators. It is the most expensive movie of its time, costing \$3.8 million, and loses \$1.5 million at the box office. Despite the film's lack of success, it establishes Hughes as a major Hollywood player.

While making *Hell's Angels*, Hughes earns his pilot's licence and develops a lifelong passion for aviation. One reason for this is the fact that, as a result of a childhood illness, he suffers badly from tinnitus (ringing and noises in the ears). It is only in a plane's cockpit that the noises cease.

## 1931

The film *The Front Page*, produced by Hughes, is nominated for an Oscar.

## 1932

In a rented corner of a Lockheed Aircraft Corporation hangar in Burbank, California, Hughes starts the Hughes Aircraft Company, a division of Hughes Tool Company, to carry out the expensive conversion of a military plane into a racing aircraft.

*Scarface: The shame of the nation* is finally released. Hughes is the uncredited producer (Howard Hawks, the director of the picture, gets the onscreen producer credit). It was actually made in 1930, but its release was delayed due to Hughes' squabbles with industry censors over the film's sensationalism and glorification of gangsters. The film's subtitle is added to help get over this. The film does badly at the box office and Hughes finally withdraws it. It is rarely seen in the US until reissued in 1979.

## 1933

Hughes lobbies the US Department of Commerce to lower his pilot's licence number from 4223 to 80.

Hughes signs on as a co-pilot for American Airways under the name Charles W Howard. His disguise is quickly discovered and he resigns.

## 1934

Hughes wins the All-America Air Meet in Miami flying the H-1 Racer, the world's most advanced plane, which he has built and test-piloted himself. Hughes calls it 'my beautiful little thing'.

## 1935

*13 September*: Hughes sets a new speed record of 353 mph with a streamlined H-1.

## 1937

*19 January*: Hughes sets a new record flying an improved version of the H-1 (see 1935) from Los Angeles to Newark, New Jersey in 7 hours, 28 minutes, 25 seconds. His average speed is 332 mph.

Hughes buys into Transcontinental & Western Air (later TWA).

## 1938

10-14 July: With a crew of four, Hughes pilots a Lockheed 14-N Super Electra – named *New York World's Fair 1939* – on a round-the-world flight. On the way, he cuts Lindbergh's New York-to-Paris record in half, and finishes the entire journey in 3 days, 19 hours, 8 minutes. As a result, Houston's William P Hobby Airport is renamed in his honour. (It is later changed back when protests are made about naming it after someone who is still alive – perhaps a wise move.)

## 1939

7 August: Hughes is awarded the Congressional Gold Medal '... in recognition of the achievements of Howard Hughes in advancing the science of aviation and thus bringing great credit to his country throughout the world'.

Jack Frye, president of TWA, is bitterly feuding with board members who are against new plane purchases. At Frye's urging, Hughes quietly buys up a majority of TWA stock (for less than \$7 million) and takes over the company.

Now that Hughes owns TWA, federal law prohibits him from building his own planes. Seeking one that can perform better than TWA's current fleet of Boeing Stratoliners, Hughes approaches Boeing's competitor, Lockheed. He has already established a good relationship with the manufacturer, since it had built the plane he used in his record flight around the world in 1938. Lockheed agrees to Hughes' demand that the 40-passenger airliner be built in absolute secrecy. The end result is the revolutionary Constellation.

## 1941

Another of Hughes' film productions, *The Outlaw*, is released. It becomes controversial for its sexually explicit advertising and content, both featuring the barely covered bosom of its star Jane Russell. During the production, Hughes was obsessed with a minor flaw in one of Russell's blouses, and wrote a detailed memorandum on how to fix the problem. He contended that fabric bunched up two seams, giving the distressing appearance (to Hughes, at least) of two nipples on each of Russell's breasts. He designs a complicated cantilevered bra to show them off to best effect, but unbeknownst to him, she never wears it because it is so uncomfortable.

## 1942

July: Industrialist Henry Kaiser approaches Hughes with his idea for a fleet of flying transports to safely move troops and materiel across the Atlantic. They form the Hughes Kaiser Corporation and obtain an \$18 million US government contract to construct flying boats.

## 1944

Hughes flies a Constellation from coast to coast in a record seven hours. His co-pilot is TWA president Jack Frye.

## 1946

Hughes meets starlet Jean Peters at a party in Newport Beach, California. He invites the 19-year-old and her date, war hero/actor Audie Murphy, to fly with him to Catalina Island aboard his private plane.

According to some accounts, Hughes and Peters immediately embark on an unpublicised romance and are rumoured to have become engaged before splitting in the mid-1950s. There are also persistent rumours that Hughes and Peters had an illegitimate child in 1954.

*7 July:* Hughes undertakes the first flight of his XF-11 experimental twin-engined photo-reconnaissance plane. An oil leak forces one of the counter-rotating propellers to reverse direction. Hughes tries to save the plane by landing it on the Los Angeles Country Club golf course, but after clipping three houses in Beverly Hills, it crashes into a fourth. The fuel tanks explode, setting fire to the house and surrounding area. Hughes, lying beside his burning airplane, is rescued by a Marine master sergeant who is visiting friends next door.

The injuries Hughes sustains in the crash, which include a crushed collar bone, six broken ribs, a collapsed lung, a fractured skull and third-degree burns, affect him until his death. Many attribute his long addiction to opiates to the large amounts of morphine he is prescribed now. The trademark moustache he wears in later life is an attempt to cover a minor facial scar from the crash.

His difficult nine-month convalescence is overseen by Dr Verne R Mason, who becomes a lifelong friend and with whom Hughes has conversations about medical research. He later appoints Mason chair of the Hughes Tool Company's medical advisory board.

Chair of the US Senate War Investigating Committee, Senator Owen Brewster announces that he is very concerned that the government has given Hughes millions for the development and production of two aircraft that have never been delivered. According to Brewster, in 1942 President Franklin D Roosevelt overruled his military experts in order to hand out the contracts to Hughes for the F-11 and the H-4 (later known as the 'Spruce Goose'; see 1947). Brewster also reveals that Hughes provided 'softening-up parties' for government officials. He paid starlets \$200 to attend these parties, their duties including swimming nude in Hughes' swimming pool. Julius Krug, the chief of the War Production Board, often attended the parties, and a congressman who was also a frequent guest says: 'If those girls were paid \$200, they were greatly underpaid.'

## **1947**

The US Senate War Investigating Committee (SWIC) investigates Hughes' failure to complete his wartime contracts (see 1946). Among those tarred by Senator Brewster's brush is Elliott Roosevelt, the son of the late president, who, Brewster says, Hughes bribed by supplying him with girls. The investigation also exposes the expense accounts of Hughes' press agent, which show that he paid \$132 for nylons for Elliott Roosevelt's wife, the actress Faye Emerson.

Hughes tells journalists Drew Pearson and Jack Anderson that Brewster is being paid by Pan American Airways to cause trouble. According to Hughes, Pan Am is trying to persuade the US government to set up an official worldwide aviation monopoly under Pan Am's control. As TWA's owner, Hughes poses a serious threat to this plan. He claims that Brewster approached him and suggested he merge TWA with Pan Am. When he refused, Brewster began a smear campaign against him.

Drew Pearson and Jack Anderson begin their own campaign against Brewster. They report that Pan Am provided Brewster with free flights to Hobe Sound, Florida, where he stayed free of charge at the holiday home of Pan Am vice president Sam Pryor.

These charges are repeated by Hughes when he appears before the SWIC. Brewster denies the allegations, but they help to divert attention away from the charge that Hughes wasted millions of government dollars.

*2 November:* To prove that he had indeed produced at least one seaplane, Hughes flies the giant H-4 – also known as the Hercules and, more familiarly, as the ‘Spruce Goose’ because it is constructed largely of wood (birch, however, rather than spruce). Built at his Westchester, California facility, it remains the biggest aircraft ever built, with a wingspan of 320 feet (98 metres), eight massive engines and 17ft (5.2m) propellers, and weighs 300,000 lb (136,080kg). Hughes flies it for about a mile across the harbour at Long Beach, California, a flight that takes less than a minute and reaches an altitude of only about 70ft (21.3m). Although it never flies again, Hughes continues research on it until 1952 and, throughout his life, maintains it at a cost of \$1 million a year. Initially displayed at Long Beach, near the *Queen Mary*, it is now at the Evergreen Aviation Museum in McMinnville, Oregon. In 1977, the US Navy seriously considers test flights with the H-4 as part of research into low-altitude transoceanic flight, but finally decides against it.

The SWIC never completes its report on the non-delivery of the F-11 and the H-4. The committee stops meeting and is eventually disbanded.

## **1948**

Hughes purchases 929,000 shares in RKO Studios. He cuts staff from 2,500 to 600. His ‘micro-management’ of the studio and his absurd behaviour – for instance, he shuts down the operation for weeks at a time to try to control dust or to redraft his will – will eventually lead to its downfall (see [1955](#)).

## **1949**

Former starlet Terry Moore later claims that this is the year in which she is secretly married to Hughes on a yacht in international waters off Mexico, never to be divorced.

## **1950**

Hughes announces that Hughes Aircraft will move from Culver City, California, to a 25,000-acre tract west of Las Vegas. However, his key executives and technicians refuse to be exiled to the desert, and the property remains vacant.

## **1952**

Hughes leads a ‘red hunting’ crusade at RKO, closing the studio after laying off more than 1,000 employees to implement a ‘screening’ system so he can weed out Communist sympathisers.

## **1953**

Hughes is becoming increasingly reclusive. The executives at Hughes Aircraft often can’t reach him and he cuts off contact with the US Air Force. When the secretary of the Air Force goes to see Hughes at the Beverly Hills Hotel, Hughes keeps him waiting for over an hour. When he finally sees him, the secretary gives Hughes 90 days to put the company under the control of someone he, the secretary, nominates or the USAF will remove all their contracts from the company.

*17 December:* As the 90-day deadline is reached, Hughes founds the Howard Hughes Medical Institute (HHMI) in Delaware, with himself as its sole trustee. He turns over all 75,000 shares of the Hughes Aircraft Company to the institute, thus making his billion-dollar-a-year armament factory a tax-exempt charity. In this way, he is also able to get out from under the USAF ultimatum.

## **1955**

Having continued his systematic disruption and dismantling of RKO, he splits it into two entities: RKO Pictures Inc. and RKO Theatres Corporation. He then sells RKO Pictures to a subsidiary of General Tire and Rubber.

## **1956**

Hughes places an order for a fleet of 63 Boeing 707s for TWA at a cost of \$400 million. Although immensely wealthy, he still needs help to cover this huge expense. However, outside creditors require him to give up total control of the airline in return for providing the money. Unwilling to relinquish his power, and yet unable to cover the cost, Hughes' aviation empire slowly begins to crumble.

## **1957**

Hughes (52) marries actress Jean Peters (30) at the L&L Motel in Tonopah, Nevada.

Hughes fires his long-time associate Noah Dietrich. The vacancy he leaves is gradually filled by Robert Maheu, a former FBI agent whose private security firm fronts for the CIA on ultra-sensitive missions (including an unsuccessful attempt to assassinate Castro in 1960). He works for Hughes freelance, intimidating would-be blackmailers and spying on dozens of Hollywood starlets for him.

## **1958**

Hughes gives what turns out to be his last interview, to Frank McCulloch of *Time Life*.

## **1960**

Hughes is forced out of power at TWA. However, he still owns 78% of the company and spends the next few years battling to regain control.

During the US presidential race, it is reported that the Hughes Tool Company has loaned \$205,000 to Richard Nixon's brother Donald (who is attempting to revive his failing Nixonburger restaurants). Disclosure of the Hughes loan, which is never repaid, damages Nixon in the final days of the campaign.

## **1961**

Hughes Space and Communications is founded.

*The Carpetbaggers* by Harold Robbins is published. It is loosely based on the life of Howard Hughes, who is represented by the character Jonas Cord. In the 1964 film version, Cord is played by George Peppard.

## 1966

A US federal court rules that Hughes must relinquish control of TWA. He sells his shares in the airline for \$547 million, making him one of the richest men in the world.

Hughes and his wife Jean Peters move to Las Vegas. Having reserved the top two storeys of the Desert Inn for 10 days, Hughes refuses to leave when co-owners Moe Dalitz and Ruby Kolad ask him to (they can make more money renting the two floors to gamblers). Hughes finally resolves the issue by buying the Desert Inn for \$13.25 million – twice its valuation.

Hughes eventually buys the Sands (a deal that also includes 183 acres of prime Las Vegas real estate), the Castaways, the Silver Slipper and the Frontier. He makes a deal to buy the Stardust for \$30.5 million, but is prevented from finalising it by the US Securities and Exchange Commission, which is worried about Hughes having a monopoly on Las Vegas lodging.

Hughes and Peters communicate at arm's length – for example, via notes such as these:

From Hughes: 'Dearest sweet love. On channel 4 is a new movie all about Injuns – I mean really all about them so if you are watching the big eye [the CBS television logo], I hope you see it so you can tell 2 fedders about it. I love you.'

From Peters: 'Dearest Two Feathers – I will watch the redskins – but only for you – I hate Heston. I love you very much & hope to see you soon after 11:00 – if you can. Love Again.'

Robert Maheu (see [1957](#)) begins to work for Hughes fulltime, with an annual salary of \$520,000 and an unlimited expense account. Hughes instructs him to offer President Johnson \$1 million in cash to stop the underground nuclear tests taking place 150 miles from Las Vegas. He tells Maheu to repeat this offer to President Nixon after the latter enters the White House in 1968. Maheu later claims to have ignored both orders.

## 1968

Hughes buys KLAS-TV in Las Vegas. Now living in seclusion in the Desert Inn, he seldom sleeps and spends the night watching old movies aired on the channel. Occasionally, he will nod off and miss parts of the film being screened. He buys the station so that he can have the chunks he misses rebroadcast.

*5 June*: Robert Kennedy is assassinated. Hughes tells his chief adviser Robert Maheu to put all of Kennedy's key staffers on the payroll, believing that they can put a man acceptable to Hughes into the White House. Maheu is able to get Larry O'Brien, chair of the Democratic National Committee, to sign up, paying him \$15,000 a month.

## 1969

Hughes buys the Landmark in Las Vegas for \$17.3 million. A fat concrete cylinder with an oversized saucer, it has too few rooms and too little casino space, but at 31 storeys, it is slightly taller than the International, owned by Hughes' Las Vegas rival Kirk Kerkorian.

Following an investigation by Texas congressman Wright Patman, powerful chair of the House Banking Committee, the Tax Reform Bill is drafted, which will make it illegal for companies to give



their stock to charities to avoid tax, as Hughes has done with the Hughes Aircraft Company (see [1953](#)). However, Hughes' new adviser Larry O'Brien (see [1968](#)) lobbies his cronies in the Senate and succeeds in having an amendment added to the bill that creates an exemption for charities that are 'medical research organisations' – like the Howard Hughes Medical Institute.

Hughes takes over the regional airline Air West (renaming it Hughes AirWest), which brings many tourists to Las Vegas where Hughes' empire continues to flourish.

## 1970

*5 November.* The 'struggle within the Hughes organisation for control of Hughes – now a complete recluse and suffering from extreme obsessive-compulsive disorder – and his assets comes to a head. Company executives, led by Bill Gay, the Mormon administrator who has shrewdly handpicked the billionaire's attendants, put Hughes on a stretcher and move him from his ninth-floor penthouse in the Desert Inn, down the fire escape and into a waiting private jet, which takes him to the Bahamas.

This ends Robert Maheu's stint as Hughes' public face and controller of his Las Vegas empire. During their 13-year association, they never met face to face, always communicating via telephone or memo.

## 1971

Hughes is divorced from Jean Peters. Except for a brief period in 1961, they have lived more or less apart. He agrees to pay her between \$70,000 and \$140,000 a year for 20 years (the actual amount to be determined by the cost of living index) and deeds a home in Beverly Hills to her. She waives all claims to Hughes' estate, and immediately marries Stanley Hough, a 20th Century Fox executive. The usually paranoid Hughes surprises his aides when he does not insist on a confidentiality agreement from Peters.

Peters later tells *Newsweek* magazine: 'My life with Howard Hughes was and shall remain a matter on which I will have no comment.' She states only that she didn't see Hughes for several years before their divorce.

President Nixon accepts an unreported \$100,000 in cash as a campaign contribution from Hughes. In return, Hughes receives extremely favourable treatment on antitrust issues, which helps him to corner the market in Las Vegas casinos. H R Halderman, Nixon's chief of staff, will later write: 'On matters pertaining to Hughes, Nixon sometimes seemed to lose touch with reality. His indirect association with this mystery man may have caused him, in his view, to lose two elections.'

Writer Clifford Irving creates a media sensation when he claims that he has co-written with Hughes the latter's authorised autobiography. Hughes is so reclusive that he hesitates in condemning Irving, which, in the view of many, lends credibility to Irving's account.

## 1972

*7 January.* Prior to publication of the Irving 'memoirs', Hughes, in a rare telephone conference to seven journalists, denounces Irving, exposing the entire project as an elaborate hoax. Irving later spends 14 months in jail for conspiracy to defraud, forgery and perjury.

Hughes agrees to help the CIA secretly recover a Soviet nuclear submarine that sank near Hawaii four years before. The Hughes *Glomar Explorer*, a special-purpose salvage vessel, is developed for this purpose. Hughes' involvement provides the CIA with a plausible cover story: this is simply civilian

marine research at extreme depths. Hughes is supposedly given the codename 'The Stockholder' by the US intelligence community.

*17 June:* Burglars break into the Democratic National Committee's offices in the Watergate hotel in Washington DC. It is believed by many that the purpose of the break-in (which ultimately led to President Richard Nixon's resignation) is to discover whether Hughes was involved in the financing of the Democratic National Committee (see [1968](#)). This is certainly the opinion of Watergate burglar Frank Sturgis when he is interviewed by the *San Francisco Chronicle* in 1977.

Hughes sells Hughes Tool Company's stock and renames his company the Summa Corporation, ending any remaining role in his business.

*23 December:* Hughes is in Managua, Nicaragua when a massive earthquake levels the city, killing 5,000. After the quake, he stays at the country palace of dictator Anastasio Somoza before fleeing to Florida the next day.

## 1973

*10 June:* A naked Howard Hughes spends the day buzzing around Hatfield Airport near London, piloting a Hawker Siddeley 748 aircraft.

*9 August :* Still in London, Howard Hughes fractures his hip during a nocturnal bathroom run. He refuses to accept specialist advice that he exercise to get better. He remains bedridden, which leads to his living in even more squalor and filth.

## 1974

Hughes' *Glomar Explorer* finally successfully raises the Soviet submarine, harvesting two nuclear-tipped torpedoes and some cryptographic machines for the CIA. It is reported that, during the recovery, a mechanical failure caused half of the submarine to break off, falling to the ocean floor. This section is said to hold many of the most sought-after items. However, others say that the entire submarine was recovered and the CIA released this disinformation to let the Soviets think that the mission was unsuccessful.

*5 June:* Hughes' Romaine Street headquarters in Los Angeles are burgled. According to some conspiracy theorists, the theft of about 10,000 secret documents sends shockwaves through the US intelligence community.

## 1975

According to gas station attendant Melvin Dumar, he has picked up an extremely dishevelled Hughes who was hitch-hiking in the Nevada desert, and at the end of the ride, the billionaire has made Dumar his sole heir. However, subsequent court proceedings prove Dumar's claims to be fraudulent. This episode (fictional or not) will be explored in the 1980 film *Melvin and Howard* (with Jason Robards as Hughes).

## 1976

*5 April:* The 70-year-old Hughes, who has already been in a coma for three days, dies at 1.27pm, en route by private jet from Acapulco in Mexico to a hospital in Houston. The official cause of death is

chronic kidney disease, but it is just as likely to have been from dehydration, malnutrition and neglect. Much of the strange behaviour that Hughes demonstrated in later life is attributed by some biographers to tertiary stage syphilis. X-rays taken at autopsy reveal broken hypodermic needles lodged in his arms, and his six-foot-four frame weighs less than 90lb (41kg).

Because Hughes' appearance has changed so drastically and he has been seen by so few people for so long, his fingerprints are taken and sent to the FBI to establish his identity.

Hughes leaves no will. His estate, estimated at \$2 billion, is claimed by 400 prospective heirs, but it is eventually inherited by 22 cousins on both sides of his family. Texas, Nevada and California claim inheritance tax in disputes that are reviewed by the US Supreme Court three times.

## **1984**

The Hughes estate pays Terry Moore (see [1949](#)) an undisclosed settlement. She now writes a book – *The Beauty and the Billionaire* – detailing her secret life with Hughes from 1947 to 1956.

## **1985**

The Howard Hughes Medical Institute sells Hughes Aircraft to General Motors for \$5 billion and becomes the richest charity in the US.

## **2004**

*July:* The Howard Hughes Medical Institute has become the US's second-largest philanthropic organisation (after the Bill & Melinda Gates' Foundation), with an endowment of \$11 billion and annual spending of about \$450 million. The 330 'Howard Hughes Investigators' include seven Nobel Prize winners. Among much else, the institute funds stem cell research, which is no longer eligible for US federal grants.

The film *The Aviator*, starring Leonardo DiCaprio and directed by Martin Scorsese, depicts Hughes' career and personal life from the late 1920s to the mid-1940s. Its tagline is: 'Some men dream the future. He built it.'