America experiences a great surge of commercial development and technological innovation and industrial growth at the beginning of the 19th century. You can't just declare it and say we have this fascination with gadgetry and technology has done so much for us and we become world leaders. Well, how did that happen? The legal system changes dramatically in order to encourage individualistic economic competition precisely in this period. This is also a story about winners and losers. I mean, somebody's paying for the economic technological development of the nation. Democracy, industrialization and capitalism developed in tandem and transformed the look and character of the country. There's a world of difference between the America of Thomas Jefferson and that of Theodore Roosevelt. In 1801, when Jefferson was inaugurated, the United States was a new, underdeveloped country of just over five million people.
ALTHOUGH IT WAS A COUNTRY SHAPED BY IMMIGRATION
IMMIGRANTS FROM ONE COUNTRY, ENGLAND
MADE UP HALF THE POPULATION. SOME ADVENTUOUS PIONEERS HAD MOVED WEST OF THE APPALACHIAN MOUNTAINS
BUT AMERICA WAS STILL A SEACOAST SETTLEMENT
HUGGING THE ATLANTIC SHORELINE.
IT WAS A PROSPEROUS NATION, BUT IT LAGGED FAR BEHIND ENGLAND
WHICH WAS INDUSTRIALIZING FURIOUSLY
AND WITH ONLY TEN PERCENT OF ITS POPULATION LIVING IN CITIES AND TOWNS IT WAS STILL OVERWHELMINGLY AGRARIAN.
IN 1801, ALL THIS WAS ABOUT TO CHANGE
AND THE CHANGE WOULD BE SUDDEN, EXPLOSIVE
AND DEEPLY DISORIENTING.
IN THE NEXT CENTURY THE NATION'S BOUNDARIES WOULD EXPAND ENORMOUSLY
THE RESULT OF A RELENTLESS WESTWARD PUSH
AND AS AMERICA EXPANDED IMMIGRATION, CAPITALISM AND TECHNOLOGY
WOULD RESHAPE THE LAND, OLD PLACES AS WELL AS NEW ONES.
IN 1901, WHEN THEODORE ROOSEVELT BECAME PRESIDENT WHEN 77 MILLION AMERICANS LIVED IN A CONTINENTAL EMPIRE
THAT STRETCHED FROM SEA TO SEA AND ROOSEVELT'S AMERICA WAS A VERITABLE NATION OF NATIONS A MELTING POT FOR OVER 30 NATIONALITIES.
40% OF AMERICANS STILL WORKED IN FARMS IN 1900 BUT AN EQUAL NUMBER LIVED IN CITIES AND BY THIS TIME, AMERICA HAD SURPASSED ENGLAND AS A LEADING INDUSTRIAL NATION ON EARTH.
THE FORCES RESPONSIBLE FOR THESE SWEEPING TRANSFORMATIONS WERE GATHERING AS THE 19th CENTURY BEGAN.
THE AMERICAN REVOLUTION BROKE THE BACK OF STATE-REGULATED MERCANTILE CAPITALISM AND OPENED THE WAY FOR A MARKET REVOLUTION THAT PRODUCED THE WORLD'S MOST DYNAMIC ECONOMIC SYSTEM. THIS WAS THE KIND OF CAPITALISM THAT ADAM SMITH, THE SCOTTISH ECONOMIST, HAD CALLED FOR IN HIS MASTER WORK, *THE WEALTH OF NATIONS*, WHICH WAS PUBLISHED, INTERESTINGLY, IN 1776. SMITH ARGUED THAT THE PRODUCTION OF WEALTH WOULD INCREASE DRAMATICALLY IF INDIVIDUALS WERE ALLOWED TO PURSUE THEIR SELF-INTERESTS WITH LITTLE INTERFERENCE FROM GOVERNMENT AND IN SERVING THEIR OWN INTERESTS. IN FACT, INDIVIDUALS WOULD SERVE THE PUBLIC INTEREST UNCONSCIOUSLY, AS IF GUIDED AS HE SAID, BY AN UNSEEN HAND. BETTER THE UNSEEN HAND, THAN THE HAND OF THE STATE. HERE WERE RADICALLY NEW IDEAS, BUT NOT TO AMERICANS. SMITH'S THEORY COINCIDED WITH A LONG DEVELOPING AMERICAN TRADITION OF INDIVIDUALISM AND OPPOSITION TO GOVERNMENT INTERFERENCE. ALMOST EVERYONE RECOGNIZES SMITH AS THE FOUNDER OF LAISSEZ-FAIRE ECONOMICS. LESS WELL-KNOWN ARE HIS IDEAS ABOUT THE DIVISION OF LABOR. HE INSISTED THAT THE DIVISION OF LABOR WOULD GREATLY IMPROVE THE EFFICIENCY OF WORKERS. TO MAKE HIS POINT, SMITH DESCRIBED THE WORKINGS OF A PIN FACTORY. ONE PERSON MAKING A PIN, COULD MAKE PERHAPS, ONE IN A DAY. MAYBE A FEW MORE.
INTO TEN PARTS

AND GIVEN TO TEN WORKERS

A SPECIALIZED FUNCTION

A SMALL FACTORY COULD TURN

OUT 48,000 PINS A DAY.

THIS WAS THE ASSEMBLY LINE

A CENTURY AND A HALF

BEFORE HENRY FORD

WAS CREDITED WITH INVENTING IT.

AT THE TURN OF THE 18TH CENTURY

AMERICA BEGAN TO CHANGE

ALMOST IN ACCORDANCE

WITH SMITH'S IDEAS.

WHAT WE COMMONLY CALL

THE AMERICAN

INDUSTRIAL REVOLUTION

WAS ACTUALLY TWO

CONVERGING REVOLUTIONS

A TECHNOLOGICAL REVOLUTION,

BASED ON THE DIVISION OF LABOR

AND A COMMERCIAL REVOLUTION

POWERED BY A DEEP FAITH

IN ECONOMIC INDIVIDUALISM

AND UNRESTRIRED COMPETITION.

THE AMERICAN INDUSTRIAL

REVOLUTION BEGAN

WITH AN ACT

OF ECONOMIC ESPIONAGE.

IN 1789, AN ENGLISH MECHANIC

NAMED SAMUEL SLATER

LEFT HIS COUNTRY FOR AMERICA,

DISGUISED AS A FARMER.

IN HIS HEAD WERE

THE CLOSELY GUARDED SECRETS

OF BRITISH TEXTILE

MANUFACTURING.

THE FOLLOWING YEAR, SLATER

BUILT A MILL FROM MEMORY

AT PAWTUCKET, RHODE ISLAND

WITH THE BACKING

OF TWO LOCAL CAPITALISTS.

IT WAS AMERICA'S FIRST FACTORY.

SLATER'S MILL WAS A PLACE

FOR MAKING TEXTILES

THE WOVEN FABRICS

USED FOR CLOTHING

AND HUNDREDS OF OTHER PRODUCTS.

THE COTTON CLOTH

WAS MANUFACTURED

BY SPINNING MACHINES

POWERED BY WATER.

SINCE AMERICA HAD

NOT YET DISCOVERED

GREAT DEPOSITS OF COAL

ITS EMBRYONIC
INDUSTRIAL REVOLUTION

131 01:06:03:00 01:06:04:08 WOULD BE A REVOLUTION
132 01:06:04:10 01:06:06:28 PRIMARILY IN WATER-POWERED
TEXTILE PRODUCTION.
133 01:06:07:00 01:06:09:11 SLATER'S BIGGEST PROBLEM
WAS FINDING LABORERS.
134 01:06:09:13 01:06:11:22 UNABLE TO INDUCE FARMERS
TO WORK IN HIS MILL
135 01:06:11:24 01:06:13:15 HE HIRED ORPHANS
AND POOR CHILDREN
136 01:06:13:17 01:06:15:14 WHO WERE WARDS
OF THE TOWN GOVERNMENT
137 01:06:15:16 01:06:17:22 PAYING THEM 25 CENTS A WEEK.
138 01:06:17:24 01:06:20:25 THIS WAS AMERICA'S FIRST
INDUSTRIAL WORKFORCE.
139 01:06:20:27 01:06:26:09 A NEW AGE HAD BEGUN AND IT WAS
THE CAUSE OF CONCERN AND DEBATE.
140 01:06:27:22 01:06:30:03 WHEN ALEXANDER HAMILTON
HEARD ABOUT SLATER'S MILL
141 01:06:30:05 01:06:31:29 HE CELEBRATED ITS BIRTH
A YEAR LATER
142 01:06:32:01 01:06:33:28 IN HIS FAMOUS
REPORT OF MANUFACTURERS
143 01:06:34:00 01:06:36:26 WHICH LAID OUT THE ADVANTAGES
OF INDUSTRIAL DEVELOPMENT
144 01:06:36:28 01:06:38:11 FOR THE UNITED STATES.
145 01:06:38:13 01:06:41:01 THOMAS JEFFERSON WAS LESS
SANGUINE ABOUT SLATER'S MILL.
146 01:06:41:03 01:06:43:01 JEFFERSON LOVED SCIENCE
AND TECHNOLOGY.
147 01:06:43:03 01:06:46:15 HE EXPERIMENTED WITH MECHANICAL
GADGETS AND LABOR-SAVING DEVICES
148 01:06:46:17 01:06:48:21 AND TURNED MONTICELLO
INTO A WONDER PLACE
149 01:06:48:23 01:06:50:08 OF TECHNOLOGICAL CONTRIVANCES.
150 01:06:50:10 01:06:52:28 BUT JEFFERSON WORRIED
ABOUT THE NEW FACTORY SYSTEM
151 01:06:53:00 01:06:54:17 THAT HAD SPRUNG UP IN ENGLAND
152 01:06:54:19 01:06:57:20 AND WAS NOW THREATENING TO MAKE
ITS APPEARANCE IN AMERICA.
153 01:06:59:18 01:07:01:11 JEFFERSON ASSOCIATED
INDUSTRIALIZATION
154 01:07:01:13 01:07:02:27 WITH MANCHESTER
155 01:07:02:29 01:07:05:14 THE RECKLESSLY EXPANDING CITY
THAT HAD BECOME THE CENTER
156 01:07:05:16 01:07:07:08 OF THE BRITISH COTTON INDUSTRY.
157 01:07:07:10 01:07:10:28 IT WAS A CITY OF FABULOUS WEALTH
AND UNIMAGINABLE WRETCHEDNESS
158 01:07:11:00 01:07:14:00 A PLACE WHERE RIVERS HAD BEEN
TURNED INTO BLACK SEWERS
159 01:07:14:02 01:07:15:29 AND WORKERS INTO
INDUSTRIAL SLAVES.
160 01:07:16:01 01:07:19:09 ON A VISIT THERE, THE FRENCH
WRITER, ALEXIS DE TOCQUEVILLE
161 01:07:19:11 01:07:21:27 CAPTURED MANCHESTER'S
PARADOXICAL COMBINATION
OF ECONOMIC INGENUITY
AND SOCIAL BACKWARDNESS.
JEFFERSON KNEW
THAT AMERICA COULDN'T ESCAPE
INDUSTRIALIZATION
BUT HE HOPED THAT AMERICAN
FACTORIES COULD BE PLACED
IN THE COUNTRYSIDE
AND WORKED BY FARM FAMILIES
WITH STRONG DEMOCRATIC VALUES.
THAT WAY, WE COULD INDUSTRIALIZE
OUR REPUBLICAN INSTITUTIONS
AND CREATING AN ENTRENCHED
URBAN PROLETARIAT.
SAMUEL SLATER TRIED THIS
FAMILY SYSTEM OF PRODUCTION
IN NEW ENGLAND, AFTER HIS
EXPANDING SYSTEM OF FACTORIES
RAN OUT OF CHILDREN TO EMPLOY.
ALONG WITH HUNDREDS
OF OTHER EARLY INDUSTRIALISTS
SLATER BUILT AGRICULTURAL
VILLAGES AROUND HIS MILLS
TO ATTRACT DISPLACED
FARM FAMILIES.
THE FATHERS WORKED IN
SUPERVISORY AND ANCILLARY JOBS
AND THE WOMEN AND KIDS
IN THE MILL ITSELF.
SO AMERICAN INDUSTRY
BEGAN IN THE COUNTRY
NOT IN THE CITY
AND REMAINED THERE
FOR A LONG TIME
FOR THAT'S WHERE
THERE WAS FALLING WATER
TO POWER THE NEW MACHINES.
THE MOST PROMISING EXPERIMENT
IN RURAL INDUSTRY
WAS THE MODEL TOWN THAT
HAD BEEN BUILT FROM SCRATCH
IN THE 1820s,
ON A BEAUTIFUL SPOT
OF THE MERRIMACK RIVER
NORTH OF BOSTON.
IT WAS NAMED AFTER
ANOTHER INDUSTRIAL SPY
FRANCIS CABOT LOWELL.
LOWELL, A BOSTON MERCHANT
HAD GONE ON A TOUR
OF BRITISH TEXTILE MILLS
MEMORIZED THEIR
TECHNOLOGICAL SECRETS
AND ON HIS RETURN TO AMERICA,
BEGAN BUILDING A TEXTILE EMPIRE.

LOWELL BECAME ITS QUEEN CITY.

WHAT MADE LOWELL UNIQUE WAS ITS WORKFORCE.

IT WAS MADE UP ALMOST ENTIRELY OF YOUNG, UNMARRIED WOMEN

RECRUITED FROM LOCAL FARMS.

TO ATTRACT THEM, A WHOLESOME, HANDSOMELY LANDSCAPED COMMUNITY WAS CONSTRUCTED TO MANCHESTER.

FOR A PROMISING MOMENT AMERICA LOOKED LIKE IT WOULD BE THE GREAT EXCEPTION THE ONLY COUNTRY TO INDUSTRIALIZE WITHOUT SAVAGING THE ENVIRONMENT OR DEBASING THE WORKERS.

THE WOMEN OF LOWELL LIVED IN CLEAN, ORDERLY BOARDING HOUSES SUPERVISED BY MATRONS.

THEM THEY WORKED LONG HOURS, BUT THEY WERE FARM GIRLS WHO WERE USED TO A 70-HOUR WORK WEEK.

WHAT WAS NEW, AND HARD TO ADJUST TO, WAS THE TIGHT DISCIPLINE IN THE NEW WORK ROUTINE.

THE WOMEN WORKED TO THE PACE OF THEIR POWER-DRIVEN MACHINERY AND TO THE RHYTHMS OF THE CLOCK.

THE BELLS IN THE CUPOLAS AWOKE THEM AND CALLED THEM TO THEIR JOBS TO MEALS AND TO BED IN THE EVENING AND THE WORK WAS DIVIDED INTO BORING, HIGHLY SPECIALIZED TASKS.

BUT THERE WERE COMPENSATIONS.

IN THEIR OFF HOURS, THE WOMEN ATTENDED UPLIFTING LECTURES FORMED IMPROVEMENT GROUPS AND EDITED THEIR OWN MAGAZINE THE LOWELL OFFERING.

FOR THE MILL OWNERS THE SECRET TO THE SYSTEM WAS THE ROTATING WORK FORCE.

WHEN WORKERS BUILT UP A DOWRY OR HELPED SEND A BROTHER THROUGH COLLEGE, THEY LEFT.

THIS MADE IT EASIER TO HANDLE INCREASING COMPLAINTS

ABOUT PAY OR THE SPEED UP
OF THE WORK.

229 01:10:27:20 01:10:29:23 THERE WERE SEVERAL STRIKES IN THE 1830s
230 01:10:29:25 01:10:32:02 BUT THE AGITATORS WEREN'T THERE FOR LONG.
231 01:10:32:04 01:10:35:14 THE LOWELL EXPERIMENT WAS KILLED, NOT BY LABOR DISCONTENT
232 01:10:35:16 01:10:37:06 BUT BY TECHNOLOGICAL CHANGE.
233 01:10:37:08 01:10:40:14 IN THE 1830s, STEAM POWER BEGAN TO REPLACE WATER POWER
234 01:10:40:16 01:10:42:07 IN THE MILLS
235 01:10:42:09 01:10:45:20 STEAM GENERATED BY NEWLY EXPLOITED PENNSYLVANIA HARD COAL
236 01:10:45:22 01:10:47:07 OR ANTHRACITE.
237 01:10:47:09 01:10:50:02 SLATER WAS THE FIRST TO BUILD LARGE, STEAM-DRIVEN FACTORIES
238 01:10:50:04 01:10:51:21 BUT SOON OTHER COTTON MILLS MADE THE CONVERSION TO COAL AND STEAM.
239 01:10:51:23 01:10:53:27 STEAM POWER MEANT BIGGER MILLS, FASTER PRODUCTION RUNS
240 01:10:53:29 01:10:57:02 CLOSER SUPERVISION OF THE WORKERS
241 01:10:57:04 01:10:59:00 AND A GREATER DIVISION OF LABOR, IN THE INTEREST OF EFFICIENCY
242 01:10:59:02 01:11:02:22 AND WHEN THIS HAPPENED THE YOUNG YANKEE WOMEN BEGAN TO LEAVE.
243 01:11:02:24 01:11:04:01 THE YOUNG YANKEE WOMEN BEGAN TO LEAVE.
244 01:11:04:03 01:11:06:07 THEY WERE REPLACED BY IRISH WORKERS
246 01:11:08:11 01:11:10:26 THE IRISH WOMEN STAYED;
247 01:11:10:28 01:11:13:19 THEY WERE TOO POOR TO LEAVE.
248 01:11:13:21 01:11:15:17 BY 1850, LOWELL WAS A SQUALID MILL TOWN
249 01:11:18:12 01:11:21:07 A MINIATURE MANCHESTER
251 01:11:22:29 01:11:25:19 MOST HISTORIANS HAVE IT WRONG.
253 01:11:27:17 01:11:29:14 NOT ITS BEGINNING, THAT MARKED THE ADVENT
254 01:11:29:16 01:11:31:21 OF FULL-SCALE INDUSTRIAL CHANGE IN AMERICA
255 01:11:31:23 01:11:34:00 IN THE AGE OF COAL, STEAM AND IMMIGRANT LABOR.
256 01:11:34:02 01:11:36:13 WHILE THE FACTORY SYSTEM WAS EVOLVING IN THE NORTHEAST
258 01:11:42:05 01:11:44:18 THAT TIED THE EXPANDING NATION TOGETHER
259 01:11:44:20 01:11:47:00 WITH ROADS, CANALS AND RAILROADS
AND CREATED MODERN CAPITALISM.

261 01:11:50:27 01:11:53:28 THIS COMMERCIAL REVOLUTION
REVOLVED AROUND AN AXIS

262 01:11:54:00 01:11:56:23 THAT RAN FROM NEW YORK
TO CHICAGO.

263 01:11:56:25 01:12:00:21 TAKE A MAP, DRAW A LINE
FROM NEW YORK UP TO BOSTON

264 01:12:00:23 01:12:02:15 AND THEN SOUTH TO BALTIMORE.

265 01:12:02:17 01:12:05:17 PUT YOUR HAND ON THE MAP AND
MOVE IT ACROSS THE COUNTRY

266 01:12:05:19 01:12:08:18 ALL THE WAY TO THE SOUTHERN TIP
OF LAKE MICHIGAN

267 01:12:08:20 01:12:11:09 STOP, YOU'RE IN CHICAGO.

268 01:12:11:11 01:12:13:02 IT'S IN THIS GEOGRAPHIC CORRIDOR

269 01:12:13:04 01:12:15:13 AND THE MISSISSIPPI VALLEY
THAT SERVICED IT

270 01:12:15:15 01:12:17:29 THAT THE COMMERCIAL REVOLUTION
OF THE EARLY 19th CENTURY

271 01:12:18:01 01:12:19:18 WAS CONCENTRATED.

272 01:12:19:20 01:12:23:02 IN 1830, WHEN THEY BEGAN TO MAKE
CONTACT WITH ONE ANOTHER

273 01:12:23:04 01:12:25:26 NEW YORK AND CHICAGO WERE
VASTLY DIFFERENT PLACES.

274 01:12:25:28 01:12:27:24 NEW YORK WAS A THRIVING
COMMERCIAL CENTER

275 01:12:27:26 01:12:29:22 OF ALMOST A QUARTER
OF A MILLION PEOPLE.

276 01:12:29:24 01:12:32:04 IT HAD A SPECTACULAR GIFT
FROM NATURE

277 01:12:32:06 01:12:34:17 A SPACIOUS, SHELTERED,
DEEP-WATER PORT

278 01:12:34:19 01:12:37:04 THAT WAS CONNECTED
TO THE INTERIOR OF THE COUNTRY

279 01:12:37:06 01:12:38:08 BY THE HUDSON RIVER.

280 01:12:38:10 01:12:39:21 AND ITS AGGRESSIVE MERCHANTS

281 01:12:39:23 01:12:42:12 EXPLOITED THIS LOCATION
TO MAXIMUM ADVANTAGE

282 01:12:42:14 01:12:46:00 MAKING NEW YORK THE COUNTRY'S
LEADING EXPORT AND IMPORT CENTER

283 01:12:46:02 01:12:47:23 AMERICA'S CAPITAL OF COMMERCE.

284 01:12:47:25 01:12:49:18 NEW YORK WAS A CITY OF THE SEA

285 01:12:49:20 01:12:52:27 WITH AN ECONOMIC EMPIRE THAT
WAS ABOUT TO GET FAR LARGER.

286 01:12:55:12 01:12:58:07 IN 1825, THE ERIE CANAL
OPENED FOR BUSINESS

287 01:12:58:09 01:13:00:02 FROM BUFFALO, ON LAKE ERIE

288 01:13:00:04 01:13:02:24 TO ALBANY AT THE HEAD
OF THE HUDSON RIVER.

289 01:13:02:26 01:13:05:14 THIS MADE NEW YORK THE ONLY PORT
ON THE ATLANTIC COAST

290 01:13:05:16 01:13:08:19 LINKED BY WATER TO WHAT
WAS THEN THE AMERICAN WEST

EXTENDING OUT TO CHICAGO.

SHIPPING COSTS TREMENDOUSLY.
NOW PIONEERING FARMERS IN THE WEST COULD SHIP THEIR GRAIN, LUMBER AND SALTED PORK THROUGH FRONTIER LAKE PORTS LIKE DETROIT ALL THE WAY TO NEW YORK. AND NEW YORK COULD TRANSSHIP THEM ALMOST ANYWHERE IN THE WORLD WITH ITS MAGNIFICENT MERCHANT FLEET. THE CANAL THAT HELPED MAKE NEW YORK ALMOST ANYWHERE IN THE WORLD WITH ITS MAGNIFICENT MERCHANT FLEET. BUT IN 1830, THERE WAS NO TOWN OF CHICAGO. AN ISOLATED FUR TRADING POST ON THE FAR EDGE OF THE AMERICAN SETTLEMENT. THE RICHEST MAN IN NEW YORK, JACOB ASTOR HAD EXTENDED HIS FUR-TRADING EMPIRE OUT TO CHICAGO BUT THE DESTINIES OF THESE TWO PLACES WOULD BE MORE TIGHTLY CONNECTED IN FUTURE YEARS. NATURE HAD PAVED THE WAY DURING THE LAST ICE AGE. WHEN THE GLACIERS THAT COVERED THE NORTHERN PART OF THE CONTINENT BEGAN TO MELT THEY CREATED A RUSHING RIVER FROM THE GREAT LAKES AND CUT A GAP THROUGH THE APPALACHIAN MOUNTAINS RUNNING BETWEEN NEW YORK AND CHICAGO PASSED THROUGH THIS GAP. BECAUSE OF THE MOHAWK PASS THERE'S NO MOUNTAIN BARRIER BETWEEN NEW YORK AND CHICAGO.
AS THERE IS BETWEEN OTHER EASTERN PORTS AND CHICAGO.

THIS GAVE NEW YORK A HUGE ADVANTAGE OVER ITS RIVAL EASTERN CITIES AND UNITED THE ECONOMIC DESTINIES OF NEW YORK AND CHICAGO.

THE COMPLETION OF THE ERIE CANAL ENCOURAGED THE NEWLY FORMED STATE OF ILLINOIS TO BEGIN A CANAL PROJECT OF ITS OWN.

IT WOULD DRIVE THE CANAL FROM THE CHICAGO RIVER DOWN TO THE ILLINOIS RIVER WHICH FLOWS INTO THE MISSISSIPPI. THIS CANAL WOULD CREATE AN ALL-WATER HIGHWAY FROM NEW YORK DOWN TO NEW ORLEANS WITH CHICAGO SITUATED AS ONE OF ITS KEY JUNCTURES.

IT WAS RUMORS OF THIS CANAL THAT FIRST BROUGHT NEW YORK SPECULATORS TO CHICAGO TO ASSESS ITS ECONOMIC POTENTIAL. WHAT THEY SAW DIDN'T IMPRESS THEM. BECAUSE OF THE DRAINAGE PROBLEMS MOST OF THE PLACE WAS UNDERWATER FOR A GOOD PART OF THE YEAR AND MOST OF THE INHABITANTS WERE WILD, HARD-DRINKING FRENCH CANADIANS WHO HAD MARRIED INTO INDIAN TRIBES. THE PLACE HAD THREE RAUCOUS TAVERNS.

WITH NO CHURCH OR SCHOOLHOUSE.

THE ONLY THING CHICAGO HAD GOING FOR IT WAS ITS LOCATION.

BUT THAT WAS ENOUGH TO INTEREST NEW YORK MONEY.

CHICAGO'S RIVER GAVE IT A PROTECTED HARBOR AND THE RIVER WOUND SOUTH WITH THE BUILDING OF THE NEW CANAL BECOME AN OPEN DOOR INTO THE TALL GRASS PRAIRIE.

THE MOST SPLENDIDLY ENDOWED AGRICULTURAL REGION IN THE WORLD.
EVERYTHING THEY HAD ON CHICAGO

INVESTING IN SWAMPLAND IN HOPE THAT THE CANAL

WOULD TURN A MUD HOLE INTO A METROPOLIS.

THEIR ECONOMIC PROSPECTS WERE TIED TO THE TOWN'S ECONOMIC PROSPECTS.

HAVING INVESTED HEAVILY IN CHICAGO REAL ESTATE

EVERY IMPROVEMENT THEY MADE, BE IT A ROAD OR A BUILDING

ADDED TO THE TOWN'S WEALTH AND THEIR OWN.

IT WAS THE WORKING OUT OF ADAM SMITH'S NOTION

THAT SELF-INTEREST PROMOTES THE PUBLIC INTEREST.

IN CHASING WEALTH, THEY BUILT A GREAT CITY.

CHICAGO WAS THE CREATION OF WHAT THE ECONOMIST JOHN MAYNARD KEYNES CALLS "THOSE BEASTS OF CAPITALISM" "RISK-TAKING IN INNOVATION" THAN ANY OTHER PLACE

THE BRUTAL AND INVENTIVE VITALITY OF THE 19th CENTURY.

YOU COULD UNDERScore THAT WORD BRUTAL.

WHEN CITY LOTS WENT UP FOR SALE TO HELP PAY FOR THE CANAL

SPECULATORS POURED INTO CHICAGO AND THIS CREATED PRESSURE

TO REMOVE THE PEACEFUL POTTOWATOMIE INDIANS.

THE POTTOWATOMIE CLAIMED MOST OF THE LAND AROUND CHICAGO

HAD BECOME TOO VALUABLE

IT WAS ARGUED, TO BE LEFT IN THE POSSESSION OF SAVAGES.

SO THE INDIANS WERE DISPLACED

IN A LAND SWINDLE MASQUERADING AS A TREATY NEGOTIATION

AND WITH THEM WENT THE FRENCH-CANADIAN FOREST TRADERS

WALKING SILENTLY WITH WIVES AND HALF-BREED CHILDREN

TO GOVERNMENT RESERVATIONS FURTHER WEST.

THIS IS HOW CHICAGO WAS TURNED, AT THE VERY MOMENT OF ITS BIRTH

FROM A PRE-CAPITALIST
FRENCH AND INDIAN TRADING POST

Anglo-American Town.

The symbol of this cultural transformation was the grid.

When Chicago was designated as a future canal town, it was laid out by state surveyors in a grid or checkerboard pattern.

The grid turned land into real estate to be bought and sold.

Land went to the highest bidder and to remove land from the market for public use such as parks or public squares was considered a waste of a profit-generating resource.

So early Chicago had no public squares and only one small park.

When the city was built up, people were forced to go to cemeteries and use them as picnic grounds.

Chicago’s founders envisioned a great future.

There was only one problem: Chicago had no money.

Enter William Ogden; problem solved.

Ogden, a New York state legislator, was sent to Chicago by New York capitalists who had bought land there on speculation.

He hated the place at first, but saw its potential.

And set himself up as a conduit for New York money that began streaming into Chicago.

Ogden and his business associates then set about building a town and connecting it to the rest of the country.

They built plank roads to grain farms out on the prairie.

Established Lake trade with the east via the Erie Canal and tapped New York capital to complete the building of the Illinois and Michigan Canal.
AN URBAN INFRASTRUCTURE

WITH BANKS AND BUSINESSES,
ROADS AND BRIDGES
PACKING PLANTS
AND GRAIN ELEVATORS
LIBRARIES AND SCHOOLS.

THESE PRAIRIE CAPITALISTS
WERE CEASELESS INNOVATORS.

THE YEAR THE CANAL WAS OPENED
OGDEN WAS ALREADY INVESTING
IN A TRANSPORTATION TECHNOLOGY
THAT WOULD REPLACE THE CANAL--
IT WAS THE RAILROAD.

IN 1847, CHICAGO DIDN'T HAVE
A SINGLE MILE OF RAILROAD.
TEN YEARS LATER, IT WAS
THE RAIL CENTER OF AMERICA
AND OGDEN WAS
THE RAILROAD KING OF THE WEST.
BY THE OPENING OF THE CIVIL WAR
MORE RAILROADS MET AT CHICAGO
THAN AT ANY OTHER SPOT ON EARTH.
ST. LOUIS,
CHICAGO'S CHIEF URBAN RIVAL
HAD BUILT A THRIVING COMMERCE
WITH NEW ORLEANS
USING STEAM-POWERED RIVERBOATS.
BY THE TIME OF THE CIVIL WAR,
CHICAGO HAD DISPLACED ST. LOUIS
WHICH REMAINED TIED TO THE RIVER
AS THE REGION'S
MAJOR TRADE CENTER.
THE RAILROAD TIED THE LOWER
MIDWEST TO THE NORTHEAST
AND ENSURED THAT
THIS SECTION DIDN'T SPLIT OFF
AND BECOME PART OF
THE CONFEDERACY IN 1861
WHEN THE LOWER MISSISSIPPI
BECAME A REBEL RIVER.
CHICAGO ROSE
TO REGIONAL PROMINENCE
BY BECOMING NOT
A MANUFACTURING CENTER AT FIRST
BUT A TRADE CENTER,
A GIGANTIC EXCHANGE ENGINE.
HERE'S HOW THE SYSTEM WORKED
FOR TWO COMMODITIES
LUMBER AND WHEAT:
CHICAGO SAT BETWEEN TWO
DIFFERENT ECOSYSTEMS
THE TIMBER-RICH LANDS
OF UPPER WISCONSIN AND MICHIGAN
AND THE TREELESS PRAIRIE.
AND IT WAS BUILT
ON LAKE MICHIGAN

The water corridor that connected it.

Owen and other Chicago capitalists purchased entire forests in the north and sent lumber by lake boats down to Chicago where it was processed and then sent out by canal and rail to prairie farmers. Chicago's lumber mills made cottages, schoolhouses, stores, taverns and churches.

Out on the prairie, it wasn't uncommon for entire groups of homesteaders to gather together at a desolated depot to await the arrival from Chicago of their entire ready-made town.

The wheat trade was a more symbiotic relationship and the land wasn't the loser. Reapers made at Cyrus McCormick's steam-driven Chicago factory allowed farmers to cut the wheat that Chicago shipped to the rest of the world. Farmers made money, Chicago merchants made money and the key to it all was the railroad.

Railroads were prohibited from entering the congested heart of Manhattan, but in free-wheeling Chicago where money-making was unimpeded by government restraints, the railroads steamed right into the center of town creating tremendous noise and congestion.

And killing or mangle two persons a day at unprotected rail crossings.

As one foreign visitor said: Chicago was the American Manchester.

The place people visited to see the new economic order.

While not yet as rich or wretchedly poor as Manchester it was a place of even greater
ECONOMIC CREATIVITY AND CHAOS.

A COMMERCIAL POWERHOUSE
OF THE UGLIEST CITIES IN AMERICA
AND THE UNHEALTHIEST AS WELL.

IT WAS ONE IN THE 1850s.
CHOLERA, A WATERBORNE DISEASE

HIT THE CITY WITH DEVASTATING FORCE KILLING IN ONE YEAR ALMOST SIX PERCENT OF ITS POPULATION.

IN THAT DECADE, CHICAGO HAD THE HIGHEST DEATH RATE OF ANY AMERICAN CITY.

THE PROBLEM WAS THAT CHICAGOANS WERE DRINKING THEIR OWN SEWAGE.

BOTH GARBAGE AND RAW SEWAGE WERE DUMPED INTO THE CHICAGO RIVER ALONG WITH THE BLOOD AND REMAINS OF ANIMALS SLAUGHTERED AT THE CITY'S MEAT-PACKING PLANTS.

THE RIVER WAS BLOOD RED.

THIS RIVER WATER IN TURN FLOWED INTO LAKE MICHIGAN THE SOURCE OF THE CITY'S WATER SUPPLY.

EVEN SMALL FISH GOT INTO THE WATER SUPPLY AND WOULD COME SHOOTING OUT OF SPIGOTS AND SINKS.

"WHEN YOU TURNED ON THE HOT WATER," AS ONE CHICAGOAN JOKE "YOU GOT CHOWDER." THERE WAS NO JOKING THOUGH ABOUT CHOLERA, WHICH STRUCK PEOPLE WITH TERRIBLE SUDDENNESS AND KILLED THEM IN A DAY.

FINALLY, PUBLIC FEAR AND OUTRAGE FORCED THE CITY TO ACT TO SAVE ITSELF.

OGDEN AND OTHER CITY OFFICIALS HIRED A BOSTON ENGINEER ELLIS CHESBROUGH TO BUILD A MODERN WATER SUPPLY AND SEWAGE SYSTEM.

INTAKE TUNNELS WERE DRIVEN FAR OUT INTO LAKE MICHIGAN AND THE CHICAGO RIVER WAS REVERSED

BY A PROCESS OF DREDGING AND PUMPING.

NOW IT CARRIED CHICAGO'S WASTE AWAY FROM THE CITY

INTO THE ILLINOIS AND MICHIGAN CANAL
552 01:24:29:23 01:24:32:21 PAST COMPLAINING BUT
LESS POWERFUL CANAL TOWNS.
553 01:24:35:06 01:24:38:11 CHESBROUGH ALSO LIFTED CHICAGO
OUT OF THE MUD AND SWAMPY SOIL
554 01:24:38:13 01:24:40:20 THAT WERE BREEDING PLACES
FOR CHOLERA.
555 01:24:40:22 01:24:43:14 HE RAISED UP THE ENTIRE TOWN
BY AS MUCH AS TEN FEET
556 01:24:43:16 01:24:45:09 JACKING UP
ENTIRE ROWS OF BUILDINGS
557 01:24:45:11 01:24:48:29 WITH THE PEOPLE RIGHT IN THEM
558 01:24:47:01 01:24:50:04 AND PLACING DREDGED SOIL FROM
THE RIVER BOTTOM UNDER THEM.
AND THE REVERSAL OF THE RIVER
ENGINEERING PROJECTS OF THE AGE
561 01:24:58:09 01:25:00:18 AND THEY GAVE CHICAGO
A REPUTATION AS A CITY
562 01:25:00:20 01:25:02:20 THAT COULD ACCOMPLISH
ALMOST ANYTHING.
563 01:25:02:22 01:25:04:08 RAW, WILDLY GROWING CHICAGO
564 01:25:04:10 01:25:06:16 ILLUSTRATED BETTER
THAN ANY OTHER PLACE
565 01:25:06:18 01:25:09:26 AMERICA'S FAITH IN TECHNOLOGY
AND UNFETTERED CAPITALISM--
566 01:25:09:28 01:25:12:05 FORCES THAT WERE
CONQUERING THE FRONTIER
567 01:25:12:07 01:25:14:12 AND RAISING AMERICA
TO GREATNESS.
568 01:25:14:14 01:25:17:02 THE CHICAGO STORY IS
A CAUTIONARY TALE;
569 01:25:17:04 01:25:20:02 SELF-INTEREST DOESN'T ALWAYS
LEAD IN THE BENIGN DIRECTION
570 01:25:20:04 01:25:22:00 ADAM SMITH HOPED IT WOULD.
571 01:25:22:02 01:25:24:16 THESE SAME FORCES
OF CAPITALISM AND TECHNOLOGY
572 01:25:24:18 01:25:26:27 WOULD SHAPE THE COUNTRY
EVEN MORE EMPHATICALLY
573 01:25:26:29 01:25:28:11 AFTER THE CIVIL WAR.
574 01:25:28:13 01:25:32:02 MAKING AMERICA AND CHICAGO
GREAT OPPORTUNITY CENTERS
575 01:25:32:04 01:25:32:04 BUT ALSO SCENES OF ECONOMIC
EXCESS, INJUSTICE AND UNREST.