

## Robert Fulton

Nov 14, 1765 - Feb 23, 1815

Throughout history men have sought to make the world faster, production more efficient and life a little bit easier. The Hudson River was home to one such legendary inventor and his creation. While Robert Fulton did not invent the steamboat, or its engine, he did design the first working steamboat for commercial purposes.

Robert Fulton was born November 14, 1765 on a farm in Little Brittan Township, Pennsylvania.<sup>1</sup> His father and mother were Scotch-Irish immigrants.<sup>2</sup> Robert Fulton senior was a tailor in Lancaster Pennsylvania and his wife, Mary Smith, came from an established and educated family.<sup>3</sup> The family moved out of Lancaster in the spring of 1765 to Conowingo Creek in Little Brittan Township, a major Presbyterian settlement thirty miles south of Lancaster.<sup>4</sup> Nine months later, Mary gave birth to their first son named, Robert Fulton.<sup>5</sup>

The family had difficulty sustaining itself by means of agricultural production in Conowingo Creek, and in 1772 they moved back to Lancaster.<sup>6</sup> Robert Fulton Sr. died shortly thereafter in 1774 leaving no will or substantial patrimony.<sup>7</sup> Fulton stayed in Lancaster for ten years, where he received partial education. He attended the school of Caleb Johnson, a Tory Quaker.<sup>8</sup> It is recorded that the young Fulton repeatedly skipped out on his studies and could be found meandering around the metal works. The town was

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<sup>1</sup> Philip, Cynthia Owen. Robert Fulton: Biography. New York: 1985. p3

<sup>2</sup> Philip. Robert Fulton: Biography.. p3

<sup>3</sup> Ibid

<sup>4</sup> Philip. Robert Fulton: Biography.. p3

<sup>5</sup> Philip. Robert Fulton: Biography.. p4

<sup>6</sup> Sale, Kirkpatrick. The Fire of His Genius: Robert Fulton and the American dream. New York: Simon and Schuster, 2002. p42

<sup>7</sup> Sale. The Fire of His Genius:. p42

<sup>8</sup> Sale. The Fire of His Genius:. p43

home to a small but somewhat famous center for craftsmen and mechanics. Lancaster was becoming a key manufacturer of guns and armaments during American Revolution. As a consequence, the town became a hotbed for patriotic sentiment during the war years, leaving a strong impression upon the young Fulton.

At seventeen, Fulton moved to Philadelphia.<sup>9</sup> In 1782 he took up an apprenticeship with a jeweler, decorating lockets and pendants with human hair and miniature painting.<sup>10</sup> The revolution created difficult constraints on the colonials, and made it extremely difficult for a young artist to make a living.<sup>11</sup> In order to continue his passion in the field of art, Fulton left America.

In 1787 Fulton moved to London and went to see Benjamin West a renowned painter, who had left America and resided there as a court painter.<sup>12</sup> In London, many people began to take interest in the young Fulton, including Viscount Courtenay, later Earl of Devon. Fulton was invited to Devonshire to paint the Viscount's portrait.<sup>13</sup> While in Devonshire Courtenay and Fulton experimented with steam power and submerged mechanism for propulsion.<sup>14</sup> He met more men that would later invest in his ambitious plans, such as Francis, third Duke of Bridgewater, the father of the English canal system, and his hardly less famous engineer, James Brindley, and also Earl Stanhope.<sup>15</sup> These men prompted Fulton to look more into the world of inventions and turn his creative artistic talent from painting to designing and aquatic engineering. He soon after moved

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<sup>9</sup> Sale. The Fire of His Genius:. p44

<sup>10</sup> Ibid

<sup>11</sup> Philip. Robert Fulton: Biography.. p13

<sup>12</sup> Sale. The Fire of His Genius:. p47

<sup>13</sup> Ibid

<sup>14</sup> Ibid

<sup>15</sup> Ibid

on to a career in canal design.<sup>16</sup> During this time, he invented a method of canal digging, prefabricated iron bridges, designed aqueducts for canals, and contemplated the operations of steamboats.<sup>17</sup> He journeyed to Paris in 1797 and expected to sail for America six months later; instead he remained there for seven years.<sup>18</sup> In Paris Fulton focused on submarines, which he claimed had the capacity to nullify naval combat with the use of torpedoes.<sup>19</sup>

Fulton soon met a man that would shape his future for ever more, Joel Barlow. Joel was supportive with both advice, connections and in a monetary sense. Barlow was an American writer, statesmen and modern thinker.<sup>20</sup> Barlow moved to Paris and soon introduced Fulton to another one of his dear friends, Thomas Paine.<sup>21</sup> These connections would serve to both further his connections and serve as a means of validation for Fulton's ideas. February of 1798 Fulton received a 15 year patent for his Canal project. He sent word to Earl Stanhope of his success and that he had forwarded his submarine treatise to Napoleon Bonaparte.<sup>22</sup> It outlined the prices he would charge for manufacturing and use of his Nautilus submarine and torpedo system, the government replied that they were interested.<sup>23</sup> However, nothing significant developed from this arrangement.

In the dismal winter of 1802, Robert Fulton met Robert Livingston.<sup>24</sup> Livingston discussed his notions of steam travel which intrigued the young inventor. After much

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<sup>16</sup> Sale. The Fire of His Genius: P53

<sup>17</sup> Sale. The Fire of His Genius: P56

<sup>18</sup> Philip. Robert Fulton: Biography.. p62

<sup>19</sup> Sale. The Fire of His Genius: P63

<sup>20</sup> Hutcheon,. Robert Fulton: p 21

<sup>21</sup> Ibid

<sup>22</sup> Hutcheon,. Robert Fulton: p 19

<sup>23</sup> Sale. The Fire of His Genius: P69

<sup>24</sup> Sale. The Fire of His Genius: P82

discussion, Fulton and Livingston agreed to build one of these ships propelled by steam. Fulton was convinced that the best suited engine must come from Boulton Watt & Co which was located in England.<sup>25</sup> Livingston's had it delivered to America using his diplomatic connections. Fulton calculated and used a variety of methods to construct a working prototype. He impressed Livingston, who agreed that they were ready to build a full scale boat.

In 1806 Robert Fulton arrived in New York and began the legendary construction of the *North River*. The ship was ready for launch August 17<sup>th</sup>, 1807.<sup>26</sup> The boat left with a small crew and list of invited guests. The boat traveled 150 miles up the Hudson River from New York City to Albany in thirty-two hours which included an overnight layover. The trip was a complete success, not because it was the first steamboat to be built, but because it was the most practical, economical, and commercially successful application ever to be designed. After this success, Fulton focused on the commercial monopoly he had created with Livingston.<sup>27</sup>

On February 23, 1815 Robert Fulton died of the ambiguously described "exposure". It is unknown what exactly this means, but it is known that he did have weak lungs and he was often lacking in concern for his health.<sup>28</sup> Still to this very day his legacy echoes throughout our entire modern world. His application in mechanical design, steam travel, naval defense and pure human ambition are witnessed through our history and our modern society.

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<sup>25</sup> Ibid

<sup>26</sup> Philip. Robert Fulton: Biography. p201

<sup>27</sup> Philip. Robert Fulton: Biography. p285

<sup>28</sup> Sale. The Fire of His Genius. P170