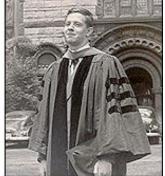


- 0. THE WORLD OF JOHN NASH Story Preface
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MARTHA NASH LEGG

Accepted into Princeton University's highly prestigious mathetmatics department, John Nash created a board game which his colleagues called "Nash." When Parker Brothers released a commercial version of "Nash," in 1952, it was (and still is) called "Hex" (because it is played on a diamond-shaped board consisting of hexagons). His doctoral thesis, on game theory, would be revisited years later with very special results. Martha Nash Legg, Dr. Nash's sister, provided this image of her Princeton-graduate brother. It is online via PBS. John Nash was:

• A thinking child, discovering his love of mathematics early.

• A thinking <u>student</u>, abandoning his early plans to become a chemical engineer because "it [engineering] was a matter of doing work neatly rather than thinking."

• A thinking adult, developing a win-win approach to <u>game theory</u> that still has wide-reaching effects.

At Carnegie Tech (known today as Carnegie Mellon), John's professor thought the <u>young mathematician was</u> <u>brilliant</u>:

His graduate professor, R.J. Duffin, recalls Mr. Nash as a tall, slightly awkward student who came to him one day and described a problem he thought he had solved. Professor Duffin realized with some astonishment that Mr. Nash, without knowing it, had independently proved Brouwer's famed theorem. (From "The Lost Years of a Nobel Laureate," an article by Sylvia Nasar published in the November 13, 1994 issue of the New York Times Sunday Book Review.)

Impressed with the student from West Virginia, <u>Solomon Lefschetz</u> offered him Princeton University's most prestigious fellowship. Nash accepted, at the urging of his professor at Carnegie, <u>John Synge</u>. At <u>Princeton</u>, the young scholar was surrounded by other geniuses:

• There was <u>Albert Einstein</u>, later designated "Person of the 20th Century," although he had been a gradeschool failure.

• There was John Louis von Neumann, whose game theories Nash later took to a different level of analysis and whose "supercomputer ideas" greatly contributed to the "Manhattan Project" work at Los Alamos.

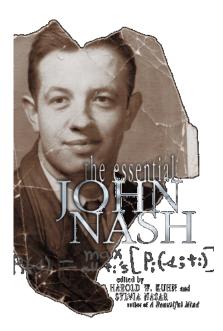
• And ... there was Lefschetz, a "towering <u>genius</u>" who, according to his students, never came up with an incorrect result or a correct proof!

It was, to put it mildly, a rarefied world.

#### See Learning Tasks for this story online at:

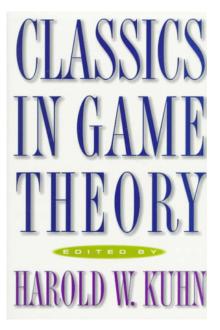
http://www.awesomestories.com/asset/AcademicActivities/THE-WORLD-OF-JOHN-NASH-A-Beautiful-Mind

## Media Stream



### The Essential John Nash

Image online, courtesy <u>amazon.com</u> website. View this asset at: <u>http://www.awesomestories.com/asset/view/The-Essential-John-Nash</u>



<u>Classics in Game Theory</u> Image online, courtesy <u>amazon.com</u> website. View this asset at: <u>http://www.awesomestories.com/asset/view/Classics-in-Game-Theory</u>



#### Einstein's Repulsive Idea

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#### John Lewis von Neumann

Image online, courtesy Los Alamos National Laboratory (LANL). PD

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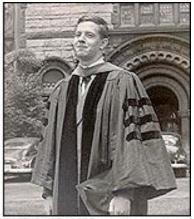
## <u>Solomon Lefschetz</u>

Image online, courtesy the U.S. Naval Academy website. PD

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#### Manhattan Project Photo

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MARTHA NASH LEGG

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