GEORGE WASHINGTON CARVER'S VISION OF SUSTAINABILITY AND SOME EXAMPLES OF SUSTAINABLE TECHNOLOGIES

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The United Nations (UN) report entitled "Our Common Future" introduced the concept of sustainable development to the world of politicians, economists, international development workers and religious community in 1987. The United Nations Conference on Environment and Development (UNCED) convened in 1992 brought together bothgovernment representatives and the non governmental agencies in Rio de Janeiro, Brazil to further develop this concept of global sustainability and to implement appropriateactions worldwide. Recently, several secular organizations like the Union of Concerned Scientists recognizes the importance of religious communities in the discussions and practices of global sustainability. Increasingly, many scientists are realizing the need for applying moral values in dealing with the environment. They also recognize the fact the environmental degradation problem cannot be solved by applying more science and technology. Combination of religious teachings about creation and scientific knowledge of the biosphere will enable many to take care of God's creation which will pave way to global sustainability.

George Washington Carver, an outstanding scientist and a deeply religious person, promoted global sustainability several decades ago when he worked at the Tuskegee University in Alabama. He recognized long ago that sustainability can be achieved through combining science and faith. He applied religious values such as justice to the poor and to creation and humility and reverence towards God's creation in his scientific exploration. He firmly believed that through proper keeping of creation motivated by religious values one can achieve sustainability.

In this presentation, we will explore Carver's vision of global sustainability and we will describe a few sustainable technologies appropriate to present conditions that are inspired by Carver's work.

Carver was invited by Booker T. Washington, the founder of the Tuskegee Institute, to create a department of agricultural sciences. In his letter of acceptance, Carver expressed his desire to cooperate with Washington and do all he can through Christ who strengthens him to better the condition of our people. He recognized that a mono-culture, cotton, was degrading the soil and was also keeping the black farmers who were only one generation removed from slavery in poverty. In 1897, he established an experimental station with one horse to power all equipment. He wrote in one of his bulletins,

"For eight years the Tuskegee station has made the subject of soil improvement a special study, emphasizing the subject of crop rotation, deep plowing, terracing, etc., keeping in mind the poor tenant farmer with one-horse equipment; so therefore, every operation performed has been within his reach, the station having only one horse." 1

He applied the principles of loving one's neighbor and caring for the vulnerable persons to degraded and abused soil. He wrote an article in 1914 entitled "Being Kind to the Soil." In that article he observed,

"Unkindness to anything means an injustice to that thing. If I am unkind to you I do you an injustice, or wrong you in so me way. On the other hand, if I try to assist you in every way that I can to make a better citizen and in every way to do my very best for you, I am kind to you. The above principles apply with equal force to the soil. The farmer whose soil produces less every year, is unkind to it in some way; that is, he is not doing by it what he should; he is robbing it of some substance it must have, and he becomes, therefore, a soil robber rather than a progressive farmer." 2

He called on the farmers to use biblical teachings on Sabbath to the land in soil management. In a lecture to farmers in 1921, he noted,

"We take this very book, here - go way back here, almost to the beginning of time and we find.....the farmers were obliged to rest their lands and every fifty years was jubilee year. This was picnic time for the soil. Nothing must be taken off of it. Everything it produced was to go back to the soil. Now then, you know as well as I know that ever since that time we have heard such terms as diversify, diversify, diversify-rest your soil. We paid absolutely no attention to it." 3

Carver considered exploitation of land as sinful. An Atlanta newspaper quoted him as saying,

"Conservation is one of our big problems in this section. You can't tear up everything just to get the dollar out of it without suffering as result. It is a travesty to burn our woods and thereby burn up the fertilizer nature has provided for us. We must enrich our soil every year instead of merely depleting it. It is fundamental that nature will drive away those who commit sin against it." 4

Carver teaches us that in order to achieve global sustainability, we need to apply biblical principles of justice, love, frugality, creativity, and sacrifice even in the area of caring for God's creation.

Carver emphasized the "Divine inspiration" in his scientific exploration. In 1924, Carver expressed his reliance on divine inspiration in the following words,

"I never grope for methods; the method is revealed at the moment I am inspired to create something new. With our God to draw aside the curtain, I would be helpless." He was criticized by an anonymous editorial writer in the New York Times for Carver ascribing to divine inspiration for his success. But Carver stood his ground and responded to the editorial with these words,

"I regret exceedingly that such a gross misunderstanding should arise as to what was meant by Divine inspiration.' Inspiration is never at variance with information; in fact, the more information one has the greater will be the inspiration." [5]

Nearly 70 years later, the Union of Concerned Scientists have recognized the need for including religious perspectives in caring for creation. A recent video produced by the Union of Concerned Scientist entitled "Keeping the Earth" uses passages from the scripture with scientific perspective on creation to challenge congregations to get involved in the care of creation. Christians who are involved in the environmental sciences should follow Carver in developing innovative solutions through Divine inspiration and by following biblical principles.

Carver's vision of global sustainability was grounded in his deep Christian faith. His reverence for all of God's creation and his humility were essential ingredients for establishing global sustainability. One of the most important aspects of Carver's philosophy regarding global sustaianability is hope. Hope based on the abundance of God's creation to fulfil the basic needs of God's creation. Carver demonstrated through his work that by using God given talents one can find multiple usage for even ordinary plants like peanuts, sweet potatoes and soy beans. Carver also showed us that as Christians we need to be concerned about the persons farthest down. Without justice for the poor, we cannot achieve global sustainability.

Following the vision and practices of Carver, several simple, appropriate technologies have been developed by the author during the last two decades. The following slides show a number of technologies that promote sustainability in the areas of urban agriculture, building techniques, and alternative energy.

Some Appropriate Technologies that can be Developed with Carver's Vision

1. Food Producing Technologies:

As many institutions have developed and are developing some extremely innovative food production systems, we will focus only on those technologies that others are not pursuing and which have potential to help the poor.

Urban Agriculture

It is estimated that in the next century more than 50% of the population will be living in urban areas. One of the consequences of the urbanization is the destruction of productive land all over

the world. While it is necessary to slow down or even halt the destruction of productive agricultural lands, wet lands and other habitats for birds and animals, we need to look for innovative ways to grow food in the urban areas to decentralize food production and to reduce energy and other resources spent on transporting and processing food. At the churchwide offices of the Evangelical Lutheran Church in America (ELCA), an experimental urban gardening is being tried on the seventh floor of the parking garage. Using 4' diameter wading pools, a variety of vegetables and fruits are grown in a 9" soil medium. Last year we produced 500 pounds of vegetable in 15 productive containers. It is estimated that each container can yield about 30 to 50 pounds of vegetable during the growing season. The seventh floor garage can hold about 600 such containers and therefore theoretically can yield between 9 to 15 tons of vegetables.

(SLIDES)

Urban aquaculture involving decentralized fish production is yet another system that can be promoted in cities. Unlike other animals fishes may not be barred from cities. They can be kept inside houses without endangering the health of human beings and they do not make noises or produce wastes that cannot be processed easily. The Ocean Ark International at Falmouth, Massachusetts has developed a suitable unit for urban conditions. By converting roofs or top floors of garages that are being underutilized to roof top gardens and fish farms, substantial amount of food can be raised in cities. These techniques also assures food security and safety.

2. Alternative Energy Technologies

One of the sustainable energy sources that does not get enough attention and publicity is the use of human energy for transportation and power production. The World Watch Institute has been promoting bicycle as the best urban transportation system which can reduce pollution and congestion. While bicycles are designed to be used for transportation, they can also be modified to produce power to operate small-scale agriculture and industrial implements. The author has designed an attachment to the bicycle that transforms the bicycle into a small power source to operate a rice thresher, a peanut sheller, a corn sheller, a water pump, grinders, a circular saw, a wood working lathe, and a small metal lathe.

(SLIDES)

3. Building Technologies

Sustainable building technologies have been developed through the centuries in several parts of the world. Rammed earth techniques from China, adobe (mud bricks) building technology from the Native American settlements in the Southwest US, and straw bale construction technology from the early settlers from Nebraska are examples of sustainable technologies that can be adapted to modern conditions and requirements. Recently, some people living in modern buildings are experiencing Multiple Chemical Sensitivity syndrome. It is suspected that the chemical used in the production of the building materials may be the cause for this sickness. There is a definite need to produce safe building products like wood stains, paints, and others. Carver was able to see in the clays of Georgia and Alabama the various color paints that could be made without harmful chemicals. There is so much that nature can give us in terms of building

materials if only we can see like Carver did.

The author introduced plastered straw construction to Indian villages last year. Preliminary results show that locally grown non-edible straws can be used as building materials and that such use will reduce the burnt bricks, cement, and other energy intensive materials usage.

(SLIDES)

Today, the proponents of sustainable society realize that science and technology alone cannot establish sustainability and are beginning to give importance to religious beliefs and values. At the turn of this century Carver showed us the need for combining scientific exploration and one's faith. We see the effects of decades of separating faith and values from our daily life resulting in the increase of lawlessness, greed, poverty, violence, environmental degradation, and unsustainable life styles. The churches hurt by the creation and evolution controversy failed to provide vision and leadership based on the kingdom values in the area of environmental stewardship. Environmental degradation, poverty, and violence which all lead to unsustainable society need to be confronted with faith and moral values. Carver's vision and work which combined justice, humility, creativity and scientific exploration provide models for the church to follow as it strives to contribute to global sustainability.

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Carver, George Washington

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Biographical Highlights

He could have added fortune to fame, but caring for neither, he found happiness and honor in being helpful to the world. *Epitaph on the grave of George Washington Carver* (quoted in *American Experience* 1980).

George Washington Carver (1860? - 1943) was an extraordinary individual, dedicated to lifelong learning and the practical application of the sciences. Through a blend of spiritual inspiration, artistic inclination and scientific talent, Carver made many contributions to this world and the environment, such as creating more than 300 peanut-based products, numerous developments for the sweet potato, and developing revolutionary crop rotation theories. His passion and service extended beyond the walls of a classroom, permeating the American South, by educating and empowering farmers in agricultural techniques. In addition to being a gifted teacher, researcher and innovator, Carver was known as a skilled artist, musician and gardener.

Carver was the first black man to study at Iowa State University, earning a Bachelor of Science in 1894. He was then appointed to the faculty and received his master's degree in agriculture and bacterial botany in 1896. Months later, he accepted an invitation, or rather a calling, to make his indelible mark at Tuskegee Institute in Alabama, where he served for forty-seven years. This humble genius, who was often referred to as the "plant doctor" or the "peanut man," died in his sleep in Tuskegee on 5 January 1943. Shortly before his death, Carver donated his entire savings to the institute to found the Carver Research Foundation for research in agriculture.

Carver received a number of awards for his achievements. He received an Honorary Doctorate of Science from Simpson College in 1928. He was named a fellow of the Royal Society of Arts of London. He received the Theodore Roosevelt Medal for Valuable Contributions to Science and the Spingarn Medal for Distinguished Service in Agricultural Chemistry by the NAACP. Carver was honored with a United States commemorative postage stamp in both 1947 and 1998. He was elected to the Hall of Fame for Great Americans in 1977 and the National Inventors Hall of Fame in 1990. That same year, Iowa State awarded him a Doctor of Humane Letters. His birthplace in Diamond Grove, Missouri, is the first National Monument to honor an African American, a teacher, or even a scientist.

Historic Roots

George Washington Carver was born the second son to his mother, Mary. His birthdate was never recorded, through scholars think it was in the early 1860s. He was born into slavery during the Civil War and grew up on a plantation owned by Moses and Susan Carver. As an infant, night raiders (presumed members of the Ku Klux Klan) kidnapped both George and his mother. He was recovered, due to a request put forth by his slave owners, after being found abandoned in Arkansas. His mother, Mary, was never to be seen again and was presumed killed. Equally unfortunate was that his father (enslaved on a nearby plantation) was killed in a logging accident shortly after George's birth. The Carvers became surrogate parents to George, whose surname he took, although they never adopted him. As a sickly child, he spent many hours observing and collecting plants, flowers, rocks, and other natural objects that fascinated and captured his attention. The Carvers encouraged his thirst for knowledge, which prompted him to travel to different parts of the state, in search of schools that would educate blacks. At twelve, George left

the couple, traveling to communities in Missouri and Kansas, working odd jobs until he received a high school education (Holt 1943; Elliot 1966).

Carver drifted from place to place in the hope of becoming college educated, experiencing hardships and rejection along the way, due to the color of his skin. While working as head cook at a hotel, he befriended one of the owners who shared a passion for art. The relationship opened a door to his admission into art school at Simpson College in Iowa in 1890. Torn between agriculture and art, witnessing the harsh realities of black artists, Carver chose a more vocational trade. He transferred to Iowa Agricultural College, now known as Iowa State College, where he majored in botany.

After teaching and graduating with a master's degree in 1896, Carver made a life-altering decision when he consented to head the agricultural department at Tuskegee Institute. Without having much needed resources or pay comparable to that he received in his former job, Carver used his imagination to "create living laboratories." He used available materials to create a makeshift lab. His passion encouraged his students to excel despite the odds.

Carver was sought after by noteworthy individuals, such as Thomas Edison and Henry Ford, because of the innovation and importance of his work. He never married, nor had children, but he left an eternal legacy to agriculture, science, and African-American higher education.

Importance

Carver, an Environmental Steward

Carver felt that the earth is "not just a treasure house to be ransacked and plundered and to be profited from. [It is] our home and a place of beauty and mystery and God's handiwork" (Stanley 1996, 55). This quote affirms that, as an environmental steward, Carver relied heavily on God's revelation for the simple purposes of things.

Carver made significant impact on how humans serve as stewards and conscientiously utilize the Earth's natural resources. As an agricultural researcher and a chemist, his creative inventions for new uses for common plants opened a door to natural and environmental benefits. His contributions to science were extensive. He developed over 300 commercial applications for peanuts, including milk, cheese, flour, ink, dyes, wood stains, soap, and cosmetics. In addition, Carver developed 118 uses for sweet potatoes, including vinegar, molasses, rubber, ink, and postage stamp glue. His technique of rotating crops was beneficial for soil conservation not only in the South, but across the nation and world. He also extracted the brilliance of colors available in Alabama clay and earth, making paints (Stanley 1996).

Carver's ideas about nature and earth led to developments that revolutionized agriculture in the South. His techniques for crop rotation enlightened Southern farmers on how to cooperate with natural laws, thereby allowing them to grow better crops, prevent erosion and improve production. He discovered that through crop rotation, using peanuts, soybeans and cowpeas, nitrogen was replenished in the soil.

Carver, the Teacher

I have been preparing myself for these many years; feeling as I do that this line of education is the key to unlock the golden door of freedom to our people. *George Washington Carver* (quoted in Elliott 1966, 104)

As a passionate and humble teacher, George Washington Carver affected many lives and generations. Booker T. Washington requested Carver to assume the position of Director and Instructor of Scientific Agriculture and Dairy Science at Tuskegee Institute. Tuskegee was a school that had attracted many black students from the South, emphasizing vocational skills that would be useful for teaching, technicians and farming.

Carver's dedication as a teacher was demonstrated when he turned down the opportunity to work with Thomas Edison for a $100,000 yearly salary (Kremer 1987). This generous salary would have been a great incentive for many people at the time, but not for Carver, who earned $125 a month during his nearly half a century of work at Tuskegee Institute. Not discouraged by the lack of resources at Tuskegee, Carver viewed his professorship as a calling, a challenge, and an opportunity to uplift his people. Although he was told he was dealing with the worst soil in Alabama, through his resourcefulness, Carver and his students produced a profitable crop every year (after his first year). People from all over the world, including Russia, Poland, China, Japan, India, and Africa came to Tuskegee Institute to listen to Dr. Carver's techniques of agriculture and his successful experiences in the rural South. His achievements at Tuskegee helped African Americans gain respect in the fields of science and technology.

Carver, the Southern Farmer's Friend

Frustrated with the lack of hope displayed by many black Southern farmers, George Washington Carver began the Farmers Institute. He selflessly shared his knowledge with the rural farmer - insights of the land and how it operated with nature. He reached day laborers, sharecroppers and tenant farmers through his movable school on wheels. With his "Tuskegee Wagon," Carver visited those who were willing to listen, teaching insights that extended their understanding of farming beyond their natural survival mentality, including land conservation techniques. While he provided food for their soul, Carver also fed them. This gave him a natural opportunity to teach nutrition information, advocating the benefits of fresh fruit and vegetables. He also offered home improvement ideas and medicinal advice, such as the cure for pellagra. Carver was most pleased with the humble beginnings of the movable school, once operated by a rickety mule-drawn cart. It later became known as the "Jesup Agricultural Wagon," a fully equipped traveling experiment station (Elliot 1966).

Carver, the Advocate

George Washington Carver was an agriculturalist advocate when the need arose. He spoke on behalf of Congress, to the House Ways and Means Committee, as a supporting witness on a pending bill that proposed to place a tariff on the peanut. Also, when the United Peanut Association of America was formed, the group asked Carver to represent them on the 1921

congressional committee in Washington. Carver was adamantly against the exploitation of land, which he felt depleted the nature God had provided (Stanley 1996).

Ties to the Philanthropic Sector

"It is not the style of clothes one wears, neither the kind of automobile one drives, nor the amount of money one has in the bank, that counts. These mean nothing. It is simply service that measures success." George Washington Carver (as quoted at GWCNM "Carver's Quotes")

The degree of Carver's impact extends beyond his agricultural contributions, encompassing his service to help others obtain a higher quality of life. Carver contributed to the economic improvement of the Southern farmer by offering alternative crops beneficial to them and their land. He brightened the homes of impoverished men and women throughout the South and gave hope to the next generation of farmers. As a teacher, Carver used a personal, hands-on method and was not limited by the walls of a classroom. Yet, his vision extended beyond his students and Southern rural farmers to the national and international communities. He strived to help his students to view the world as one.

Though Carver prides his success on service, his environmental contributions were substantial. He conscientiously utilized bio-based products and industrial products made from renewable resources rather than those made from scarce or non-renewable resources. Environmentally, his contributions were viewed by some as an agricultural revolution (Stanley 1996; Holt 1943). He was an extraordinary man who recognized the natural relationships of living things, both plants and people.

He was a deeply religious man who treasured the world of nature and saw himself as a vehicle by which the secrets of nature could be understood and harnessed for the good of mankind. That was his mission in life, and his reward for performing this mission was the simple knowledge that he was performing well God's will. (Kremer 1987, 17)

When Carver died in 1943, he was still earning the same $125 a month he had agreed to as an acceptable income forty-seven years prior; he had refused to accept a single increase in salary. When asked why, Carver humbly responded, "What would I do with more money? I already have all the earth" (*George Washington Carver* 1980). Carver's explicit desire was to serve and uplift his people. He declined lucrative career opportunities with other institutions, to keep his commitment of sharing knowledge with the poor black farmer. He was committed to making an impact, which he did for his people, his students, the scientific community, farmers, community members, policy makers, and food consumers around the world.

Key Related Ideas

- **Agricultural chemist** : A scientist specializing in chemistry and the science, art, and business of cultivating soil, producing crops, and raising livestock; farmer
- **Botanist** : One who specializes in the study of plants
- **Crop rotation** : The agricultural process of growing different types of crops at different seasons to replenish the soil

- **Environmentalist** : One who advocates for, or works toward, protecting the natural environment from destruction or pollution.
- **Inventor**
- **Researcher**
- **Teacher**
- **Scientist**

Important People Related to the Topic

Morris K. Jesup was a New York philanthropist who made his money in banking and manufacturing. Jesup donated the funds necessary to upgrade Carver's movable learning cart to a mobile teaching wagon, which he used to educate Southern farmers about agricultural techniques. His movable school became known as the Jesup Agricultural Wagon.

President Theodore Roosevelt (1830-1908) was the twenty-sixth President of the United States of America. George Washington Carver advised him on racial problems and policies. In 1939, Carver received the Theodore Roosevelt medal, which stated, "To a scientist humbly seeking the guidance of god and a liberator to the men of the white race as well as the black" (Elliott 1966, 221).

Henry A. Wallace was elected Vice President of the United States in 1940, under President Roosevelt. As a student and mentee of Dr. Carver at Iowa State University, Wallace was intrigued by his teaching, which sparked his lifelong interest in plant genetics. Wallace was also the founder of the largest seed corn company in the world, Pioneer Hybrid.

Booker T. Washington (1856-1915) was the founder and head of the Tuskegee Normal and Industrial Institute for black students, established in 1897 in Tuskegee, Alabama. He was one of the most influential black leaders and educators of his time and extended the invitation for Carver to lead the agricultural department at Tuskegee Institute, a school that advocated vocational education.

Related Nonprofit Organizations

The Carver Research Foundation was formed in 1940 to conduct agricultural research at Tuskegee Institute. Currently, the university's multimillion-dollar Carver Research Foundation and George Washington Carver Agricultural Experiment Station received worldwide attention through noted research activities in agriculture, the natural sciences, and other pure and applied sciences.

The George Washington Carver Museum was authorized by the trustees of Tuskegee Institute in 1938 at the request of its president, Frederick D. Patterson. The Carver Museum was dedicated by President Henry Ford in 1941. It houses Dr. Carver's extensive collections of native plants, minerals, birds and vegetables; his products created from the peanut, sweet potato and various clays; and his numerous paintings, drawings, and textile art. Also on display are plaques, medals and artistic work created in tribute to Dr. Carver.

The George Washington Carver National Monument , preserved by the National Park Service, is located in Diamond, Missouri. The setting includes the 1881 Historic Moses Carver house and the Carver cemetery. His birthplace was designated a national monument, the first honor bestowed to a black person, on 14 July 1943.

The George Washington Carver Outdoor School was developed in 1990 to help young people develop a rapport with nature and to better understand themselves and their relationship to the world around them. The city-wide nonprofit school allows children exposure to the outdoors, including activities that foster respect for nature, such as hiking expeditions and camping trips.

Tuskegee Institute was established in 1880 by an act of the Alabama State Legislature. The school's first President, Dr. Booker T. Washington, officially opened the Normal School for Colored Teachers on 4 July 1881, which later became known as the Tuskegee Institute.

Related Web Sites

The College of Agriculture - Iowa State Fair exhibit section of the Iowa State University's Web site , at http://www.ag.iastate.edu/carver.html , presents a celebration of the legacy of its first African-American student and faculty member, George Washington Carver.

The Faces of Science: African Americans in the Sciences Web site , at http://www.princeton.edu/~mcbrown/display/faces.html , provides general historical background on African-American men and women who have contributed to the advancement of science and engineering. The site contains a synopsis of Carver's contributions and patented inventions. It also provides a list of reference materials for further research on Carver, at http://www.princeton.edu/~mcbrown/display/carver.html .

George Washington Carver National Monument Web site provides information on the national park dedicated to George Washington Carver and includes his boyhood home located just outside of Diamond, Missouri. The site contains biographical information, photographs, Carver quotes, and information on the 210-acre park. Visit at http://www.nps.gov/gwca/ .

The National Inventors Hall of Fame Web site presents Carver's accomplishments, biography, and the impact of his inventions. See " George Washington Carver" entry at http://www.invent.org/hall_of_fame/30.html .

The National Park Service: Tuskegee Institute National Historic Site Web site , at http://www.nps.gov/tuin/ , provides a direct link to the Tuskegee Institute National Historic Site, located on the campus of present day Tuskegee University, which became a part of the National Park System in 1974.

Tuskegee University Web site , at http://www.tuskegee.edu , provides i nformation about current students, faculty and programs, as well as a tribute to Carver in the "History and Archives" section.

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This paper was developed by a student taking a Philanthropic Studies course taught at the Center on Philanthropy at Indiana University. It is offered by *Learning To Give* and the Center on Philanthropy at Indiana University.

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A struggling peanut plant growing in heavy Alabama clay; a poor, black orphan with no material resources; an ancient pecan tree standing solitary sentry in a Georgia field: Many people would consider these at best mundane, at worst pitiable. But George Washington Carver, eminent researcher and educator, saw in all of these, and in much more, the very hand of God.

God's Little Workshop

The ability to discern the infinite in both the animate and inanimate objects of his very finite world was one of Carver's unique hallmarks. In an age where scientists had begun to view science and religion as mutually exclusive, Carver stood out for his insistence that science provides proof of God's existence. He was fond of paraphrasing the eighth chapter, 32nd verse of the Gospel of John, "And ye shall know the truth and the truth shall make you free," as, "And you shall know science and science shall set you free, because science is truth." Or, more simply, "Science is simply the truth about anything."

Carver's chemistry laboratory at Alabama's Tuskegee Institute, where he investigated the chemical properties and economic possibilities of peanuts, pecans, clay, soybeans, sweet potatoes and other substances, was filled with vials, bottles, and insect, plant, mushroom and flower collections. He often referred to his lab as "God's little workshop." He did not consider himself a scientific genius--that is, he did not take credit for discovering one or another product. Instead, he considered himself a conduit for divine inspiration and revelation: "[I] ask the Great Creator ... to permit me to speak to Him through the three great Kingdoms of the world, which He has created, viz.--the animal, mineral and vegetable Kingdoms."

Nor was Carver reticent about how he worked. In 1924, he spoke to an audience at a church in New York City, saying "I never have to grope for methods: the method is revealed at the moment I am inspired to create something new." The New York Times, strongly disagreeing with Carver's…

Coalition for Christian Colleges and Universities

Global Stewardship Initiative

\hints and suggestions TO FARMERS: GEORGE WASHINGTON CARVER AND RURAL CONSERVATION IN THE SOUTH

MARK HERSEY

ABSTRACT

His reputation as "the Peanut Man" notwithstanding, George Washington Carver was very much a part of the nascent conservation movement during the Progressive Era. From the Tuskegee Institute, he sought to persuade black farmers that altering their environmental behavior could mitigate, to some extent, the economic and political vicissitudes they faced as a result of their race. His campaign on behalf of impoverished black farmers provides an instructive case study of how one strand of Progressive conservation was undone by its failure to adequately navigate the intersection of the South's land use and social and political institutions.

GEORGE WASHINGTON CARVER remains a staple of elementary and junior high school social-studies classes, but academic historians have paid scant attention to him in recent decades. Indeed, the last time Carver excited much interest among them was during the 1970s when they debunked his reputation as a scientist and recast him as an Uncle Tom for his relative silence on racial injustice in the nation.[1] In 1981, Linda O. McMurry rectified this depiction to a considerable extent in her excellent and balanced biography, *George Washington Carver: Scientist and Symbol*. With its publication, historians seemingly considered the matter closed.[2] Most apparently agreed with David Herbert Donald's conclusion that Carver was "no longer part of our usable past."[3] 1

Such a conclusion is short-sighted for many reasons, most especially because these critiques of Carver were directed more at the myths surrounding him than his actual achievements. The mythical Carver was "the Peanut Man," a cultural icon that emphasized and inflated his scientific discoveries and obscured the legitimate reasons for historians to consider him.[4] In the swirl of accolades and tributes that had accompanied his rise to fame as a "creative chemist," much of Carver's lasting significance had been lost. 2

The dearth of interest in Carver among environmental historians is particularly lamentable. Carver spent the better part of his life thinking about the interaction of people and the natural world and making contributions to the development of sustainable agricultural techniques, but environmentalists remain only vaguely aware of his environmental vision. Believing it to be "fundamental that nature will drive away those who com-mit sins against it," Carver attempted to persuade southerners that their region's economic salvation lay in the adoption of more sustainable agricultural methods. (Despite his depiction as an Uncle Tom figure, he in fact took subtle jabs at the Jim Crow institutions of the South when he enjoined southern farmers to "be kind to the soil," reminding them that "unkindness to any-thing means an injustice done to that thing."[5]) His particular concern was the plight of impoverished black farmers in the region, and over the course of his first 3

decades at Tuskegee Institute, he waged a campaign aimed at persuading them that they could defend themselves against the economic and political vicissitudes they faced as a result of their race by turning to the natural environment. Consequently, Carver offers a unique lens through which historians can catch a glimpse of Progressive-era efforts to navigate the intersection of land use, race, and poverty in the rural South as part of the larger conservation movement.

. . .

Essential facts about George Washington Carver, as well as a very extensive reading list!

Born near Diamond Grove, Missouri, probably in 1864 but possibly as early as 1861. Youngest of 1 sister, 2 brothers. Slave father Giles died before birth. Slave mother Mary kidnapped during George's infancy. Raised by Moses and Susan Carver. As youth attended African Methodist and Presbyterian churches. Childhood distinctions: ingenious, restless. Never married. 1874 had mystical experience with pocketknife. 1875 moved to Neosho to begin school. 1877 moved to Fort Scott, Kansas. 1879 left Fort Scott after black man lynched. 1880 lived Minneapolis, Kansas, through high school. 1885 refused admission by Highland College. 1886 homesteaded in Ness County, Kansas. 1890 abandoned homestead, entered Simpson College (Iowa). 1891 entered Iowa State. 1892 won awards for painting. 1893 first scientific paper: 'Grafting the Cacti'. 1894 graduated college. 1896 Master's Degree Botany (Iowa State), accepted position Tuskegee Institute (Alabama). 1903 began classic studies on peanut. 1906 started 'Jesup Agricultural Wagon'. 1915 Booker T. Washington died. 1916 international recognition (Royal Fellow of Britain). 1921 dazzled U.S. Congress with presentation on peanuts. 1923 Springarn Medal. 1924 lambasted by liberal papers for religious beliefs. 1930's as national figure broke color barrier by speaking in many southern white colleges. 1938 health began to fail. 1939 opened his Tuskegee museum. 1942 fall worsened health. Died January 5, 1943, in Tuskegee, where he is buried.

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Humanity
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Go to this page to learn five values that made him a hero of history.

Go to this page to find links to other websites about this hero.

Go to this page to give your opinion of this hero.

BY GEORGE WASHINGTON CARVER:

Kremer, G. R. (ed.), *George Washington Carver: In His Own Words*. Columbia: Univ. of Missouri Press, 1987. PB

Many scientific publications exist but may be difficult to find.

1893 'Grafting the Cacti', in Transactions Iowa Horticulture Society.
1894 'Best Bulbs for the Amateur', in Transactions Iowa Horticulture Society.
1894 'Plants modified by man', Senior thesis Iowa State university.
1895 (with L. H. Pammel) 'Fungus Diseases of Plants at Ames, Iowa,' Proceedings of the Iowa Academy of Science.

***Among* his 44 years of Tuskegee Institute Experimental Station papers are the following:**

1898 Bulletin 1: *Feeding Acorns*.
1898 Bulletin 2: *Experiments with Sweet Potatoes*.
1901 Bulletin 3: *Fertilizer Experiments with Cotton*.
1902 Bulletin 4: *Some Cercosporae of Macon County, Alabama*.
1903 Bulletin 5: *Cow Peas*.
1905 Bulletin 6: *How to Build Up Worn Out Soils*.
1906 Bulletin 8: *Successful Yields of Small Grains*.
1906 Bulletin 10: *Saving the Sweet Potato*.
1907 Bulletin 12: *Saving the Wild Plum Crop*.
1909 Bulletin 16: *Some Ornamental Plants of Macon County, Alabama*.
1910 Bulletin 18: *Nature Study and Gardening for Rural Schools*.
1911 Bulletin 21: *White and Color Washing with Native Clays from Macon County, Alabama*.
1912 Bulletin 24: *The Pickling and Curing of Meat in Hot Weather*.
1913 Bulletin 25: *A Study of the Soils of Macon County...and Their Adaptability to Certain Crops*.
1915 Bulletin 27: *When, What and How to Can and Preserve Fruits and Vegetables in the Home*.
1916 Bulletin 31: *How to Grow the Peanut and 105 Ways of Preparing It for Human Consumption*.
1916 Bulletin 32: *Three Delicious Meals Every Day for the Farmer*.
1917 Bulletin 33: *Twelve Ways to Meet the New Economic Conditions Here in the South*.
1918 Bulletin 36: *How to Grow the Tomato and 115 Ways to Prepare It for the Table*.
1918 Bulletin 37: *How to Make Sweet Potato Flour, Starch, Sugar, Bread and Mock Cocoanut*.
1927 Bulletin 39: *How to Make nd Save Money on the Farm*.
1935 Bulletin 40: *The Raising of Hogs, One of the Best Ways to Fill the Empty Dinner Pail*.
1936 Bulletin 41: *Can Livestock Be Raised Profitably in Alabama?*
1936 Bulletin 42: *How to Build Up and Maintain the Virgin Fertility of Our Soils*.
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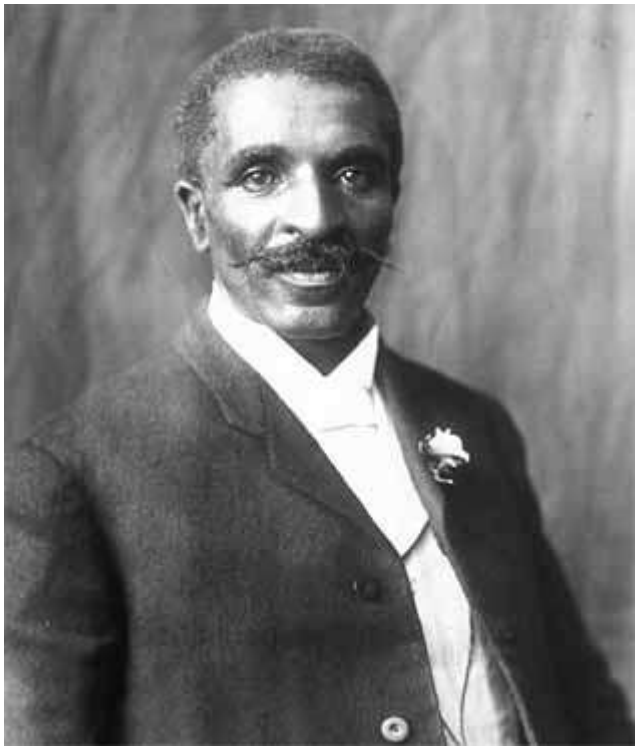
In 1921 when George Washington Carver testified on uses of the peanut before the Ways and Means Committee of the House of Representatives the Committee Chairman grudgingly granted him 10 minutes. But not only was George a spell-binding speaker - mixing humor and fact with perfect timing - he had developed 300 uses of the peanut. Two hours later George finished his presentation to thunderous applause!

http://www.heroesofhistory.com/page11.html

George Washington Carver



1864-1943

Occupation - Agricultural chemist

Awards - Spingarn Medal of the NAACP, 1923; Theodore Roosevelt Medal, 1939.

Narrative Essay

George Washington Carver (1864-1943) started his life as a slave and ended it as a respected and world-renowned agricultural chemist.

Born in Kansas Territory near Diamond Grove, Mo., during the bloody struggle between free-soilers and slaveholders, George Washington Carver became the kidnap victim of night riders. With his mother and brother, James, he was held for ransom; but before they could be rescued the mother died. Merely a babe in arms, Carver was ransomed for a $300 racehorse by Moses Carver, a German farmer. Thus he was orphaned and left in the custody of a white guardian from early childhood.

Carver had responsibility for his own education. His first school was in Neosho, Iowa, some 9 miles from his home. Neosho had once been a Confederate capital; by now it had become the site of the Lincoln School for African American children. With James he walked there every day. His first teacher was an African American, Stephen S. Frost. He and his brother went faithfully to school for several years. Finally James tired of formal schooling and quit to become a house painter, but not George. He continued until he was 17. Then he went on to complete his high school work in Minneapolis, Kans.

Carver really wished to become an artist. His sketch of the rose *Yucca gloriosa* won him a first prize at the World's Columbian Exposition (1893).

Carver applied to study at the Iowa State College of Agricultural and Mechanical Arts but was turned down when it was learned that he was of African heritage. He then applied to Simpson College at Indianola, Iowa, where he was the second African American to be admitted. Tuition was $12 a year, but even this small amount was hard to come by. Carver raised the money by working as a cook at a hotel in Winterset, Iowa.

After 3 years' attendance at Simpson College, he once again applied for admission to Iowa State. He was admitted and was placed in charge of the greenhouse of the horticultural department while doing graduate work. He earned his master's degree in agriculture in 1896.

In April 1896 Carver received a unique offer from the African American educator Booker T. Washington to teach at Tuskegee Institute in Alabama. Said Dr. Washington: "I cannot offer you money, position or fame. The first two you have. The last from the position you now occupy you will no doubt achieve. These things I now ask you to give up. I offer you in their place: work--hard, hard work, the task of bringing a people from degradation, poverty, and waste to full manhood. Your department exists only on paper and your laboratory will have to be in your head."

Carver accepted the challenge. He arrived at the tiny railroad station at Chehaw, Ala., on Oct. 8, 1896. In a report to Dr. Washington he wrote: "8:00 to 9:00 A.M., Agricultural Chemistry; 9:20 to 10:00 A.M., the Foundation of Colors (for painters); 10:00 to 11:00 A.M., a class of farmers. Additional hours in the afternoon. In addition I must oversee and rather imperfectly supervise seven industrial classes, scattered here and there over the grounds. I must test all seeds, examine all fertilizers, based upon an examination of soils in different plots."

Through the years Carver was gaining national and international stature. Chinese and Japanese farmers raised many unique problems for him. Questions were referred to him from Russia, India, Europe, South America. He later had to turn down a request to journey to the Soviet Union. In 1916 he was elected a member of the Royal Society for the Encouragement of Arts in England; he went to Washington to the War Department to demonstrate his findings on the sweet potato in 1918. He was awarded the Spingarn Medal of the NAACP in 1923.

An early close friend of Carver was Henry A. Wallace; the pair knew each other for 47 years. Wallace said that Carver often took him on botanical expeditions, and it was he who first introduced Wallace to the mysteries of plant fertilizers. Carver was a shy and modest bachelor. An attack of whooping cough as a child had permanently caused him to have a high-pitched tenor voice. He considered it a high duty to attend classes and was seldom absent. In 1908 he returned to the West to visit his 96-year-old guardian, Moses Carver, and to visit the grave of his brother, James, in Missouri.

A careful and modest scientist, Carver was not without a sense of humor. When one of his students, hoping to play a trick on him, showed him a bug with wings of a fly and body of a mosquito, Carver was quick to label it "a humbug."

Carver utilized the materials at hand. He was interested in crop rotation and soil conservation. From the clay soil of Alabama he extracted a full range of dyestuffs, including a brilliant blue. He created 60 products from the pecan. From the common sweet potato he extracted a cereal coffee, a shoe polish, paste, oils--about 100 products. From the peanut he developed over 145 products. Carver suggested peanuts, pecans, and sweet potatoes replace cotton as money crops. He published all of his findings in a series of nearly 50 bulletins.

The testimony of Carver before the congressional House Ways and Means Committee in 1921 led to the passage of the Fordney-McCumber Tariff Bill of 1922. Scheduled to speak a scant 10 minutes, he was granted several time extensions because of the intense interest in his presentation. (He appeared in a greenish-blue suit many seasons old, having refused to invest in a new suit: "They want to hear what I have to say; they will not be interested in how I look.")

In 1935 Carver was chosen to collaborate with the Bureau of Plant Industry of the U.S. Department of Agriculture. He received the Theodore Roosevelt Medal in 1939 for distinguished achievement in science. During his lifetime Carver had made many

friends. Henry Ford was his frequent host. Carver was a treasured friend of Thomas A. Edison. It was Edison who offered to make him independent with his own laboratories and an annual stipend of $50,000. Other intimates of his were Luther Burbank, Harvey Firestone, and John Burroughs. He was also a friend of three presidents: Theodore Roosevelt, Calvin Coolidge, and Franklin Delano Roosevelt.

Dr. Carver had earned the salary of $125 a month from the beginning until the end of his service at Tuskegee. He might have had much more. In 1940 he gave his life-savings, $33,000, to establish the George Washington Carver Foundation at Tuskegee Institute to perpetuate research in agriculture and chemistry. He later bequeathed his entire estate to the foundation, making a total of about $60,000. He died on Jan. 5, 1943.

At the dedication of a building in his honor at Simpson College, Dr. Ralph Bunche, Nobel Prize winner, pronounced Dr. Carver to be "the least imposing celebrity the world has ever known." Dr. Carver's birthplace was made a national monument on July 14, 1953.

Sources

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Tainted CEO won't talk peanuts to Congress; George Washington Carver was proud to

By Chris Steller 2/13/09 9:08 AM DIGG TWEET

G.W. Carver. Photo: NPS

When Peanut Corp. of America CEO Stewart Parnell took the Fifth this week instead of telling the House Committee on Energy and Commerce why he let salmonella-tainted peanut butter kill eight people (so far) and sicken thousands, the setting was ironic.

It was before another House committee (Ways and Means) in 1921 that the peanut's greatest promoter, George Washington Carver, sprung onto the national scene with willing, winning, inventive testimony that helped propelled the lowly product of the South to prominence and many uses in the food industry.

It was a different story on Wednesday: Parnell cemented his status as a pariah to the food industry and beyond with his repeated refusal to answer the committee's questions about what he knew of his plants' poisoned peanuts and the suffering his company has caused:

Mr. Chairman and members of the committee, on the advice of my counsel, I respectfully decline to answer your question based on the protection afforded me under the United States Constitution.

Parnell's appearance took place in a committee hearing room in Washington, D.C. So did Carver's, 88 years earlier. But in every other way the scene this week couldn't have been farther from Carver's triumphant Jan. 21, 1921, debut on the national stage on behalf of the peanut.

One striking note: After demonstrating dozens of uses for the peanut, Carver made this now-portentous-sounding claim:

I do not know of a single case — that is, I mean [a] normal [person] — that complains because peanuts hurt them.

A transcript of his testimony appears in a 1991 book called "George Washington Carver: In His Own Words," and all but two of 12 pages can be read online. Here are a few excerpts from his charming remarks (even in the face of racist digs):

Mr. CARVER: Mr. Chairman, I have been asked by the United Peanut Growers' Association to tell you something about the possibility of the peanut … [T]he peanut comes in, I think, for one of the most remarkable crops … [I]t has possibilities that we are just beginning to find out.

This is the crushed cake … which may be used in all sorts of combinations — for flours and meals and breakfast foods and a great many things that I have not time to touch upon just now…. This is another confection. It is peanuts covered with chocolate. As I passed through Greensboro, S.C, I noticed in one of the stores that this was displayed on the market, and, as it is understood better, more of it is going to be made up into this form. Here is a breakfast food. I am very sorry that you can not taste this, so I will taste it for you. [Laughter] Now this is a combination and, by the way, one of the finest breakfast foods that you or anyone else has ever seen. It is a combination of the sweet potato and the peanut, and if you will pardon a little digression here I will state that the peanut and the sweet potato are twin brothers and cannot and should not be separated. They are two of the greatest products that God has ever given us.

Mr. [John Q.] TILSON [R-Conn.]: Do you want a watermelon to go along with that? …

Mr. CARVER: Here is the original salted peanut, for which there is an increasing demand, and here is a very fine peanut bar. The peanut bar is coming into prominence in a way that very few of us recognize, and the manufacturers of this peanut bar have learned that it is a very difficult matter to get a binder for it, something to stick it together. That is found in the sweet potato syrup. …

Now there is an entirely new thing in the way of combinations. It is a new thing for making ice cream … a very new product that is going to have considerable value. …

I wish to say here in all sincerity that America produces better peanuts than any other part of the world, as far as I have been able to test them out. …

Here is a bottle of milk that is extracted from peanuts. Now, it is absolutely impossible to tell that milk from cow's milk in looks and general appearance. This is normal milk. …

Now here is a very attractive product — an instant coffee. … Here is a bottle of Worcestershire sauce. … Now here is a very highly flavored sauce that imitates the Chinese sauce that enters into chop suey and the various Chinese confections that they are so very fond of. …

[T]he curds can be taken out and made into the various fancy cheeses the Neufchatel and Edam …

Mr. CAREW: Did you make all of these products yourself?

Mr. CARVER: Yes, sir. They are made there in the research laboratory. That is what the research laboratory is for. …

The sweet potato products now number 107 up to date. … The peanut products are going to beat the sweet-potato products by far. I have just begun with the peanut. So what is going to come of it why we do not know.

This is the very last thing. Now this is a pomade. That is, it is a face cream and will be attractive to the ladies …

Mr. GARNER: I understood you to say that the properties of the peanut combined with the properties of the sweet potato was a balanced ration, and that you could destroy all other vegetable life and continue to sustain the human race?

Mr. CARVER: Yes, sir. Because you can make up the necessary food elements there. … Then again if we think of how the peanut is used, it is the only thing that is universally used among civilized and uncivilized people, and all sorts of animals like it, and I do not know of a single case — that is, I mean normal — that complains because peanuts hurt them.

Born to slavery in Missouri near the end of the Civil War, George Washington Carver graduated from high school in Minneapolis — Minneapolis, Kan., that is.

He spent the better part of the 1890s studying at Iowa State University before accepting Booker T. Washington's offer to head the agriculture department at Alabama's Tuskegee Institute.

One place to read more about his life, research, inventions and other pursuits is the Web site of the National Park Service's George Washington Carver National Monument in Diamond, Mo.

Print
previous

Who is George Washington Carver

★★★★★by 9 people | Log in to rate

Ranked #253 in **People**, #6,045 overall

- Stumbleupon
- Facebook
- MySpace
- Twitter
- Digg
- Delicious
- RSS
- Email

The Wish To Make Things Better Can Make All The Difference

As a botany and agriculture teacher to the children of ex-slaves, Dr. George Washington Carver wanted to improve the lot of "the man farthest down", the poor, one-horse farmer at the mercy of the market and chained to land exhausted by cotton.

Unlike other agricultural researchers of his time, Dr. Carver saw the need to devise practical farming methods for this kind of farmer. He wanted to coax them away from cotton to such soil-enhancing, protein-rich crops as soybeans and peanuts and to teach them self-sufficiency and conservation.

Dr. Carver achieved this through an innovative series of free, simply-written brochures that included information on crops, cultivation techniques, and recipes for nutritious meals. He also urged the farmers to submit samples of their soil and water for analysis and taught them livestock care and food preservation techniques.

(from Tuskegee University)

George Washington Carver At A Glance

George Washington Carver (July 12, 1864 - January 5, 1943) was an American botanical researcher and agronomy educator who worked in agricultural extension at the Tuskegee Institute in Tuskegee, AL, teaching former slaves farming techniques for self-sufficiency.

To bring education to farmers, Carver designed a mobile school. It was called a Jesup Wagon after the New York financier, Morris Ketchum Jesup, who provided funding. In 1921, Carver spoke in favor of a peanut tariff before the House Ways and Means Committee. Given racial discrimination of the time, it was unusual for an African-American to be called as an expert. Carver's well-received testimony earned him national attention, and he became an unofficial spokesman for the peanut industry. Carver wrote 44 practical agricultural bulletins for farmers.

In the post-Civil-War South, an agricultural monoculture of cotton had depleted the soil, and in the early 1900s, the boll weevil destroyed much of the cotton crop. Much of Carver's fame was based on his research and promotion of alternative crops to cotton, such as peanuts and sweet potatoes. He wanted poor farmers to grow alternative crops as both a source of their own food and a cash crop. His most popular bulletin contained 105 existing food recipes that used peanuts. His most famous method of promoting the peanut involved his creation of about 100 existing

industrial products from peanuts, including cosmetics, dyes, paints, plastics, gasoline and nitroglycerin. His industrial products from peanuts excited the public imagination but none was a successful commercial product.

(...from Wikipedia)

George Washington Carver Videos From YouTube

PT 1 of 5 George Washington Ca...

★★★★★

Runtime: 8:13 | 1335 views | Comments

George Washington Carver

★★★★½

Runtime: 2:06 | 8410 views | Comments

The Boyhood of George Washingt...

★★★★½

Runtime: 1:34 | 13367 views | Comments

automatically generated by YouTube"

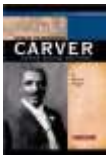
George Washington Carver Growing Up:

 George was born of slave parents on July 12, 1864 in Diamond Grove, Missouri a sickly child at birth he would remain frail for most of his childhood. One night a band of raiders attacked his family and stole George and his mother. Days later, George was found unharmed by neighbors and was traded back to his owners in exchange for a race horse. Because of his frailty, George was not suited for work in the fields but he did possess a great interest in plants and was very eager to learn more about them. Here on the farm is where George first fell in love with plants and Mother Nature. He had his own little garden in the nearby woods where he would talk to the plants. He soon earned the nickname, The Plant Doctor, and was producing his own medicines right on the farm.

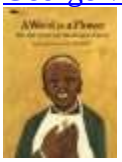
George's formal education started when he was twelve. He had, however, tried to get into schools in the past but was denied on the basis of race. No black school was available locally so he was forced to move. He said Good-bye to his adopted parents, Susan and Moses Carter, and headed to Newton County in southwest Missouri. Here is where the path of his education began. He studied in a one-room schoolhouse and worked on a farm to pay for it. He ended up, shortly after, moving with another family to Fort Scott in Kansas.

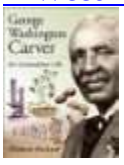
Books About George Washington Carver

...available from Amazon.



George Washington Carver:...


A Weed Is a Flower : The...


George Washington Carver:...

George Washington Carver:...

George Washington Carver:...

A Short History Of George Washington Carver

George Washington Carver devoted his life to research projects connected primarily with southern agriculture. The products he derived from the peanut and the soybean revolutionized the economy of the South by liberating it from an excessive dependence on cotton. Carver developed crop-rotation methods for conserving nutrients in soil and discovered hundreds of new uses for crops such as the peanut, which created new markets for farmers. He didn't just keep the best for himself; he gave it away freely for the benefit of mankind. Not only did he achieve his goal as the world's greatest agriculturist, but also he achieved the equality and respect of all.

Though denied admission to Highland University because of his race, Carver gained acceptance to Simpson College in Indianola, IA, in 1890. He became well respected for his artistic talent (in later days his art would be included in the spectacular World's Columbian Exposition Art Exhibit.) Carver's interests, however, lay more in science and he transferred from Simpson to Iowa Agricultural College (which is now known as Iowa State University). He distinguished himself so much that upon graduation in 1894 he was offered a position on the school's faculty, the first Black accorded the honor. Carver was allowed great freedom in working inagriculture and botany in the University's greenhouses.

In 1895, Carver co-authored a series of papers on the prevention and cures for fungus diseases affecting cherry plants. In 1896 he received his master's degree inagriculture and in 1897 discovered two funguses that would be named after him. Later that year Booker T. Washington, founder of the Tuskegee Institute, convinced Carver to come south and serve as the school's director ofagriculture.

At Tuskegee, Carver developed his crop rotation method, which alternated nitrate producing

legumes-such as peanuts and peas-with cotton, which depletes soil of its nutrients. Following Carver's lead, southern farmers soon began planting peanuts one year and cotton the next. While many of the peanuts were used to feed livestock, large surpluses quickly developed. Carver then developed 325 different uses for the extra peanuts-from cooking oil to printers ink. When he discovered that the sweet potato and the pecan also enriched depleted soils, Carver found almost 20 uses for these crops, including synthetic rubber and material for paving highways.

(...from The Great idea Finder)

His Life's Work

He continued constantly working with peanuts, sweet potatoes, and pecans trying to produce new products. He developed more than 300 products from the peanut (including Peanut Butter), 175 from the sweet potato, and 60 from the pecan. He extracted blue, purple, and red pigments from the clay soil of Alabama. He researched the manufacture of synthetic marble from green wood shavings, rope from cornstalk fibers, and veneers from the palmetto root. During WWI, he worked to replace the textile dyes that were being imported from Europe. He ended up producing and replacing over 500 different shades. In 1927, he invented a process for producing paints and stains from soybeans.

Although he did hold three patents, Carver never patented most of the many discoveries he made while at Tuskegee, saying "God gave them to me, how can I sell them to someone else?" Three different patents were issued: US 1,522,176 Cosmetics and Producing the Same. January . 6,1925 George Washington Carver. Tuskegee, Alabama. US 1,541,478 Paint and Stain and Producing the Same. June 9, 1925 George Washington Carver. Tuskegee, Alabama US 1,632,365 Producing Paints and Stains June 14, 1927 George Washington Carver. Tuskegee, Alabama.

In 1935 he was appointed collaborator in the Division of Plant Mycology and Disease Survey of the Bureau of Plant Industry of the U.S. Department ofAgriculture . By 1938, peanuts had become a $200 million industry and a chief product of Alabama. Carver also demonstrated that 100 different products could be derived from the sweet potato.

In 1940 he donated over $60,000 of his life's savings to the George Washington Carver Foundation and willed the rest of his estate to the organization so his work might be carried on after his death. George Washington Carver died on January 5, 1943 on the campus of Tuskegee Institute. He was honored by various levels of State and Federal Government as well as by foreign leaders worldwide. The United States government designated the farmland upon which he grew up as a national monument and on January 5, 1946 asGeorge Washington Carver day. He was truly a pioneer in his field and has become one of the few Black inventors recognized by mainstream America.

Carver's most important accomplishments were in areas other than industrial products from peanuts, including agricultural extension education, improvement of racial relations, mentoring children, poetry, painting, religion, advocacy of sustainable agriculture and appreciation of plants and nature. He served as a valuable role model for African-Americans and an example of the importance of hard work, a positive attitude and a good education. His humility, humanitarianism, good nature, frugality and lack of economic materialism have also been widely admired.

One of his most important roles was that the fame of his achievements and many talents undermined the widespread stereotype of the time that the black race was intellectually inferior to the white race. In 1941, "Time" magazine dubbed him a "Black Leonardo," a reference to the white polymath Leonardo da Vinci.

George Washington Carver's List

George Washington Carver compiled a list of eight cardinal virtues for his students to emulate and strive toward:

1. Be clean both inside and out.
2. Neither look up to the rich or down on the poor.
3. Lose, if need be, without squealing.
4. Win without bragging.
5. Always be considerate of women, children, and older people.
6. Be too brave to lie.
7. Be too generous to cheat.
8. Take your share of the world and let others take theirs.

Awards and Honors

He was elected a Fellow of the Royal Society of Arts, Manufacturers and Commerce of Britain in 1916, the Spingarn Medal from the National Association for the Advancement of Colored People in 1923, and in 1939 was awarded the Theodore Roosevelt Medal for "distinguished research in agricultural chemistry." Man of the Year in 1940 by the International Federation of Architects, Engineers, Chemists and Technicians. Finally, he received honorary Doctor of Science degrees from Simpson College as well as the University of

Rochester. In 1990 he was inducted into The National Inventor's Hall of Fame for his accomplishments.

Some Publications By George Washington Carver

- How to Grow the Peanut and 105 Ways of Preparing it for Human Consumption BULLETIN NO. 31 JUNE 1925
- How The Farmer Can Save His Sweet Potatoes and Ways Of Preparing Them For The Table BULLETIN NO. 38 NOVEMBER 1936
- How to Grow the Tomato and 115 Ways to Prepare it for the Table

Useful Reference Links

Tuskegee University
The Legacy of George Washington Carver
Iowa State University
George Washington Carver - Inspiring Students To Become Their Best
George Washington Carver's Memorial
George Washington Carver's Monument
National Hisorical Chemical Landmarks
George Washington Carver: Chemist, Teacher, Symbol
National Parks Service
The George Washington Carver National Monument
The Carver Academy
The Carver Academy is a non-profit, private school located in San Antonio, Texas.
5

George Washington Carver Guestbook

Share your thoughts, ask a question, or just say hello. Thanks for stoppin

George Washington Carver

George Washington Carver

George Washington Carver (1864-1943) started his life as a slave and ended it as a respected and world-renowned agricultural chemist.

Born in Kansas Territory near Diamond Grove, Mo., during the bloody struggle between free-soilers and slaveholders, George Washington Carver became the kidnap victim of night riders. With his mother and brother, James, he was held for ransom; but before they could be rescued the mother died. Merely a babe in arms, Carver was ransomed for a $300 racehorse by Moses Carver, a German farmer. Thus he was orphaned and left in the custody of a white guardian from early childhood.

Carver had responsibility for his own education. His first school was in Neosho, lowa, some 9 miles from his home. Neosho had once been a Confederate capital; by now it had become the site of the Lincoln School for African American children. With James he walked there every day. His first teacher was an African American, Stephen S. Frost. He and his brother went faithfully to school for several years. Finally James tired of formal schooling and quit to become a house painter, but not George. He continued until he was 17. Then he went on to complete his high school work in Minneapolis, Kans.

Carver really wished to become an artist. His sketch of the rose *Yucca gloriosa* won him a first prize at the World's Columbian Exposition (1893).

Carver applied to study at the lowa State College of Agricultural and Mechanical Arts but was turned down when it was learned that he was of African heritage. He then applied to Simpson College at Indianola, lowa, where he was the second African American to be admitted. Tuition was $12 a year, but even this small amount was hard to come by. Carver raised the money by working as a cook at a hotel in Winterset, lowa.

After 3 years' attendance at Simpson College, he once again applied for admission to lowa State. He was admitted and was placed in charge of the greenhouse of the horticultural department while doing graduate work. He earned his master's degree in agriculture in 1896.

In April 1896 Carver received a unique offer from the African American educator Booker T. Washington to teach at Tuskegee Institute in Alabama. Said Dr. Washington: "I cannot offer you money, position or fame. The first two you have. The last from the position you now occupy you will no doubt achieve. These things I now ask you to give up. I offer you in their place: work—

hard, hard work, the task of bringing a people from degradation, poverty, and waste to full manhood. Your department exists only on paper and your laboratory will have to be in your head."

Carver accepted the challenge. He arrived at the tiny railroad station at Chehaw, Ala., on Oct. 8, 1896. In a report to Dr. Washington he wrote: "8:00 to 9:00 A.M., Agricultural Chemistry; 9:20 to 10:00 A.M., the Foundation of Colors (for painters); 10:00 to 11:00 A.M., a class of farmers. Additional hours in the afternoon. In addition I must oversee and rather imperfectly supervise seven industrial classes, scattered here and there over the grounds. I must test all seeds, examine all fertilizers, based upon an examination of soils in different plots."

Through the years Carver was gaining national and international stature. Chinese and Japanese farmers raised many unique problems for him. Questions were referred to him from Russia, India, Europe, South America. He later had to turn down a request to journey to the Soviet Union. In 1916 he was elected a member of the Royal Society for the Encouragement of Arts in England; he went to Washington to the War Department to demonstrate his findings on the sweet potato in 1918. He was awarded the Spingarn Medal of the NAACP in 1923.

An early close friend of Carver was Henry A. Wallace; the pair knew each other for 47 years. Wallace said that Carver often took him on botanical expeditions, and it was he who first introduced Wallace to the mysteries of plant fertilizers. Carver was a shy and modest bachelor. An attack of whooping cough as a child had permanently caused him to have a high-pitched tenor voice. He considered it a high duty to attend classes and was seldom absent. In 1908 he returned to the West to visit his 96-year-old guardian, Moses Carver, and to visit the grave of his brother, James, in Missouri.

A careful and modest scientist, Carver was not without a sense of humor. When one of his students, hoping to play a trick on him, showed him a bug with wings of a fly and body of a mosquito, Carver was quick to label it "a humbug."

Carver utilized the materials at hand. He was interested in crop rotation and soil conservation. From the clay soil of Alabama he extracted a full range of dyestuffs, including a brilliant blue. He created 60 products from the pecan. From the common sweet potato he extracted a cereal coffee, a shoe polish, paste, oils—about 100 products. From the peanut he developed over 145 products. Carver suggested peanuts, pecans, and sweet potatoes replace cotton as money crops. He published all of his findings in a series of nearly 50 bulletins.

The testimony of Carver before the congressional House Ways and Means Committee in 1921 led to the passage of the Fordney-McCumber Tariff Bill of 1922. Scheduled to speak a scant 10 minutes, he was granted several time extensions because of the intense interest in his presentation. (He appeared in a greenish-blue suit many seasons old, having refused to invest in a new suit: "They want to hear what I have to say; they will not be interested in how I look.")

In 1935 Carver was chosen to collaborate with the Bureau of Plant Industry of the U.S. Department of Agriculture. He received the Theodore Roosevelt Medal in 1939 for distinguished achievement in science. During his lifetime Carver had made many friends. Henry Ford was his

frequent host. Carver was a treasured friend of Thomas A. Edison. It was Edison who offered to make him independent with his own laboratories and an annual stipend of $50,000. Other intimates of his were Luther Burbank, Harvey Firestone, and John Burroughs. He was also a friend of three presidents: Theodore Roosevelt, Calvin Coolidge, and Franklin Delano Roosevelt.

Dr. Carver had earned the salary of $125 a month from the beginning until the end of his service at Tuskegee. He might have had much more. In 1940 he gave his life-savings, $33,000, to establish the George Washington Carver Foundation at Tuskegee Institute to perpetuate research in agriculture and chemistry. He later bequeathed his entire estate to the foundation, making a total of about $60,000. He died on Jan. 5, 1943.

At the dedication of a building in his honor at Simpson College, Dr. Ralph Bunche, Nobel Prize winner, pronounced Dr. Carver to be "the least imposing celebrity the world has ever known." Dr. Carver's birthplace was made a national monument on July 14, 1953.

Further Reading

Of the many studies of Carver the best is Rackham Holt, *George Washington Carver: An American Biography* (1943). Also useful is Shirley Graham and George D. Lipscomb, *Dr. George Washington Carver, Scientist* (1944). □

George Carver Dies; Former CIA Official

Newspaper article from: The Washington Post June 29, 1994 700+ words George A. **Carver** Jr., 64, a retired...government, Dr. **Carver** joined the Center...International Studies in **Washington**, where he was a...affairs shows. Dr. **Carver** was born in Louisville...**Carver**; four sons, **George** A. **Carver** III of...

WHO COULD FORGET WHAT GEORGE CARVER ACHIEVED?(Editorial)(Letter to the...

Newspaper article from: The Post-Standard (Syracuse, NY) July 22, 2005 700+ words ...the Editor: To letter-writer **George** J. Camardella Jr. - the following was obtained from Yahoo: **George Washington Carver**, 1864?-1943, American agricultural...monument. P.S. You forgot **George** Jetson, **George** Carlin, **George**...

EXECUTIVE ORDER 06-04: GOV. BLUNT ISSUES ORDER TO DEDICATE, NAME STATE OFFICE...

News Wire article from: US Fed News Service, Including US State News February 7, 2006 700+ words ...executive order: WHEREAS, **George Washington Carver** was born into slavery near...absent a formal education, **George Washington Carver**'s intellect and affinity...WHEREAS, at the age of 11, **George Washington Carver** informed his caretakers...

George Washington Carver, an American Legend

Newspaper article from: Los Angeles Sentinel Clark, Libby March 1, 2000 700+ words Clark, Libby Los Angeles Sentinel 03-01-2000 **GEORGE WASHINGTON CARVER**, an American Legend **George Washington Carver** was born into slavery in Diamond Grove, Missouri in 1864, on the plantation of Moses...

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Newspaper article from: Los Angeles Sentinel Libby Clark March 1, 1995 700+ words Libby Clark Los Angeles Sentinel 03-01-1995 **GEORGE WASHINGTON CARVER**, an American Legend. **George Washington Carver** was born into slavery in Diamond Grove. Missouri in 1864, on the plantation of Moses...

USDA HONORS **GEORGE WASHINGTON CARVER**

Transcript from: Regulatory Intelligence Data INDSTRY GROUP 07 September 29, 1999 700+ words ...October 4-8, 1999, as **George Washington Carver** Recognition Week and today...Beltsville, Md., as the **George Washington Carver** Center. Dr. **Carver** was...be open to the public. **George Washington Carver** Center 5601 Sunnyside Avenue...

Ford Motor Company Rekindles Relationship With George Washington Carver,...

Newspaper article from: Atlanta Inquirer February 5, 2005 700+ words ...sponsoring "The Genius of **George Washington Carver**". The exhibit was launched...January 5 to commemorate **George Washington Carver** Day. The ribbon cutting...honor the legacy of Dr. **George Washington Carver**. Many are unaware of the...

Chronicaling the Life of ... George Washington Carver, an American Legend

Newspaper article from: Los Angeles Sentinel Clark, Libby February 7, 2001 700+ words

...02-07-2001 Chronicaling the Life of... **GEORGE WASHINGTON CARVER**, an American Legend By LIBBY CLARK **George Washington Carver** was born into slavery in Diamond Grove, Missouri...

GEORGE WASHINGTON CARVER PROGRAM AT UNIVERSITY OF ARKANSAS ENTERS 10TH YEAR...

News Wire article from: US Fed News Service, Including US State News May 21, 2007 700+ words ...for graduate school. The **George Washington Carver** Project was established...it has been renamed the **George Washington Carver** Research Program, but it...educator and scientist, **George Washington Carver**, from Diamond, Mo. The...

Chronicaling the life of... GEORGE WASHINGTON CARVER, an American Legend

Newspaper article from: Los Angeles Sentinel Clark, Libby February 5, 2004 700+ words

...Angeles Sentinel 02-05-2004 **George Washington Carver** was born into slavery in Diamond...and his mother, sister and **George** were kidnapped by night riders...request of founder Booker T. **Washington**. **Carver** headed the Tuskegee Agricultural...

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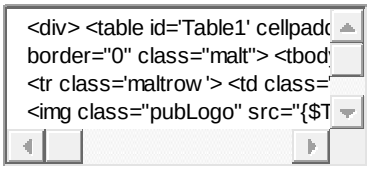

George Washington Carver

Encyclopedia entry from: Encyclopedia of World Biography George Washington Carver

George Washington Carver (1864-1943) started his life as a slave and ended it as a respected and world-renowned agricultural chemist. Born in Kansas Territory near Diamond Grove, Mo., during the bloody struggle...

George Washington Carver National Monument

Book article from: The Columbia Encyclopedia, Sixth Edition George Washington Carver

National Monument see National Parks and Monuments (table).

Carver, George Washington 1861(?)–1943

Book article from: Contemporary Black Biography George Washington Carver 1861(?) – 1943 Agricultural...Genius **Carver** ' s Legacy **George Washington Carver** was an agricultural chemist and...research, 1910-1943; founder of **George Washington Carver** Foundation and

Carver Museum...

Carver, George Washington

Book article from: Chemistry: Foundations and Applications Carver, **George Washington** AMERICAN BOTANIST c. 1864 – 1943 **George Washington Carver** was born on a Missouri farm near...Bibliography Holt, Rackham (1945). **George Washington Carver**: An American Biography. New...

Carver, George Washington Farmer, Agricultural/Food Scientist, Educator...

Book article from: Pollution A to Z Carver, **George Washington** FARMER, AGRICULTURAL/FOOD...agricultural practices developed by **George Washington Carver** at the beginning of the twentieth...Bibliography Holt, Rackham. (1943). **George Washington Carver**: An American Biography. Garden...

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