

A sepia-toned portrait of Chien-Shiung Wu, an elderly woman with short dark hair, wearing a patterned jacket. The background is a textured, slightly mottled brown. The title text is overlaid on the right side of the image.

吴健雄
献身物理科学的一生

东南大学
编

CHIEN-SHIUNG WU: A LIFE DEVOTED TO PHYSICS

● 东南大学 编

吴健雄

献身物理科学的一生

周光召

二〇〇二年四月

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艺术设计:	张志贤	
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序

Foreword

今年是我们的杰出校友吴健雄先生诞辰90周年。68年前，她从南京四牌楼这片热土上走出去，渐行而渐远，历久而弥高。半个多世纪里，吴健雄先生一步一步走向了世界，迈进了光辉的科学殿堂。今天，我们编辑此册，心中充满着对她崇高的敬意和无尽的思念。

“绚烂之极而归于平淡”。我想用这句话来描述吴健雄先生的一生，也许再恰当不过了。吴健雄先生在科学事业上的辉煌成就，以及她在世界物理学界享有的崇高声誉，可谓绚烂之极；但是，我们还可以从她的言谈处事中读出另外一种风致：从容、幽雅、宽厚、淡泊名利、高标出世。我们常常诧异，吴健雄先生如何将这二者结合得如此令人击节？因此，对于这位伟大而平实的女性，我们不能不油然而生出特别的崇高感、亲切感。

人们常说，科学无国界，吴健雄先生当然是世界的。但是，这位经常身着旗袍、交谈中总是情不自禁会冒出几句中国话的东方女性，无论从外表，还是从内心深处都更是中国的。“故园最难忘，枝叶总关情”。如今，她的墓园落座于她的出生地太仓浏河，她的纪念馆建造于她的母校——南京四牌楼东南大学校园内。我想，有钟灵毓秀的故乡山水和勤奋进取的母校师生朝夕相伴，先生是不会感到冷清和寂寞的。

前有古人，后冀来者，这是生命的规律，也是科学的规律。我们纪念吴健雄先生，就是要继承和发扬她追求真理的科学精神、严谨求实的治学态度以及平和谦逊的哲人风范。这些，正是百年东大得以绵延不绝的原因，也正是我们东南大学面向新世纪、建设高水平大学最可贵和最需要的精神品格。

天上有颗“吴健雄星”，那是智慧之星在为我们启明。

2002 will witness the ninetieth anniversary of our outstanding alumna Dr. Chien-Shiung Wu's birthday. Sixty-eight years ago, she took her leave of this lovely campus in Si Pai Lou Nanjing to a far away place to study. She was thousands and thousands of miles from her hometown, but she was closer and closer to the acme of her career. In a period of more than fifty years, Dr. Chien-Shiung Wu walked step by step to the world and to the brilliant palace of science. Today, when editing this album, we are full of profound admiration and boundless longing for her.

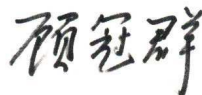
"Splendidness often goes together with ordinariess." I would like to use this saying to describe Dr. Chien-Shiung Wu. As a scientist, she has gained splendid achievements in her scientific research and the highest prestige in the field of world physics, yet we can still see another Chien-Shiung Wu. From her speech and deportment, she is calm, graceful and generous. She does not crave for fame and wealth but shows high ideals by simple living. We often wonder how Dr. Chien-Shiung Wu can combine these two in one person. We cannot but have the feeling of high respect, deep love and great adoration for this ordinary but great woman.

People often say that science has no territorial limit. It holds truth that Dr. Chien-Shiung Wu belongs to the world. But this Chinese woman, often wearing traditional Chinese costume Qi Pao, unconsciously blurting out in Chinese when talking, is a Chinese no matter from her appearance or from the bottom of her heart. "The most unforgettable is one's native soil; the dearest are the flowers and plants growing in it." Now her grave is situated in her hometown Liuhe town of Taicang City. Her Memorial Hall is built in the campus of her alma mater Southeast University (SEU) in Si Pai Lou Nanjing. I believe Dr. Wu is not feeling lonely when being accompanied day and night by her hometown, a place pregnant with beauty and productive of talent, and by her old university where the teachers are working diligently and the students are eager to make progress.

The older generation has departed, but the younger generation marches on. This is the natural law and the law of science. We commemorate Dr. Chien-Shiung Wu today in order to carry on and develop her scientific spirit, her strict and matter-of-fact approach and her modest, gentle and philosophical style, which have brought SEU in the past one hundred years continuous prosperity and success, and which are what we value most and what we badly need to promote the university to a higher academic level in this new millennium.

There is a "Chien-Shiung Wu Star" high up in the sky. It is the Star of Wisdom who is enlightening us forward.

中国工程院院士、东南大学校长



By Gu Guanqun, Academician of the Chinese Academy of Engineering, President of SEU

吴健雄(1912-1997),世界公认的最杰出的女性物理学家、世界物理学界的传奇人物,被誉为“核子物理女皇”、“中国的居里夫人”、“世界最杰出的女性实验物理学家”。吴健雄的一生业绩辉煌,成就卓著。1957年她通过实验首次验证了“弱相互作用下宇称不守恒”的理论,从而使李政道、杨振宁荣获了1957年的诺贝尔物理学奖。她还以一个外国人的身份参加了美国的“曼哈顿计划”,她的一项关于铀原子核分裂后产生的氙气对中子吸收截面研究的实验结果,对该计划的进展有相当大的贡献。吴健雄在推动海峡两岸的学术交流方面,在促进中国基础教育和高等教育发展方面,也作出了重要贡献。她是一位伟大的、爱国的、令人尊敬的科学家。

2002年5月31日,是吴健雄诞辰90周年纪念日,届时,坐落于东南大学校园内的“吴健雄纪念馆”将举行隆重的开馆仪式。为纪念吴健雄诞辰90周年并祝贺吴健雄纪念馆开馆,我们特编辑这本画册,以展现这位世界著名科学家伟大而朴实的一生。

Dr. Chien-Shiung Wu (1912-1997), a world-famous outstanding woman physicist, also a legendary figure in the field of world physics, has been honored as “Queen of Nuclear Physics”, “China’s Madam Curie”, and “the world’s most distinguished woman experimental physicist”. Dr. Chien-Shiung Wu gained dazzling achievements and remarkable successes in her life. In 1957, by her own experiments, she proved the theory of “parity nonconservation in weak interaction”, which helped Dr. Tsung Dao Lee and Dr. Chen Ning Yang win the Nobel Prize in Physics in 1957. As a foreign expert, she was invited to take part in the American “Manhattan Project”. One of her experimental results of the function of xenon emerged after uranium fission on neutron absorption cross section was a great contribution to the success of the project. Dr. Chien-Shiung Wu also made very important contributions to the academic communication between China mainland and Taiwan, to China elementary education and higher education. She is a great patriotic scientist who is respected by us all.

May 31, 2002 is Dr. Chien-Shiung Wu’s 90th birthday anniversary, on which day a big ceremony will be held to celebrate the opening of Chien-Shiung Wu Memorial Hall at Southeast University. To give special celebration to her 90th birthday and the opening of the Memorial Hall, we publish this special picture album of Dr. Chien-Shiung Wu, hoping this will help people know better this great Chinese-American woman physicist.

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生命的足迹

The Course She Followed In Her Lifetime

第一篇 生命的足迹

1912年5月31日，吴健雄出生在江南水乡——太仓浏河的一个书香世家。伴着父亲吴仲裔的人格启蒙，吴健雄在其父创办的“明德女子职业学校”接受了小学教育。思想开明的父亲是吴健雄幼年成长的重要引导者，吴健雄曾说“我的父亲是一个教育家，他超越了他的时代”。

小学毕业后，吴健雄以优异的成绩考入苏州第二女子师范学校。在那里，吴健雄见到了中国著名思想家胡适。胡适“大胆假设，小心求证”的思想对吴健雄后来的科学研究产生了深远影响。吴健雄在给胡适的信中特别提到，除了父亲吴仲裔之外，胡适对她一生的影响最大。

1930年，吴健雄被保送到南京国立中央大学数学系。1931年，吴健雄从数学系转入物理系，从而迈出了人生中的重要一步，在施士元、方光圻、张钰哲、倪尚达等诸名师的指点和教导下走上了探求科学真理的道路。

1936年，吴健雄在父亲吴仲裔和叔叔吴琢之的支持和资助下离开家乡远赴美国留学。从最初在加利福尼亚大学柏克莱分校求学，到毕业后在史密斯学院、普林斯顿大学任教，直至最后在哥伦比亚大学退休，吴健雄经历了博士、教授、美国科学院院士、美国物理学会会长……多次学术上的飞跃，登上了事业的顶峰，名满天下，世人瞩目。

吴健雄事业辉煌，婚姻和家庭生活也极为美满。1942年5月30日，吴健雄与后来也成为著名物理学家的袁家骝走进了婚姻的殿堂。在漫长的人生道路上，吴健雄和袁家骝生活上互敬互爱、学术上互相砥砺，在当代科学家中演绎了一出最现代、也最传统，最绚烂、也最感人的爱情传奇。

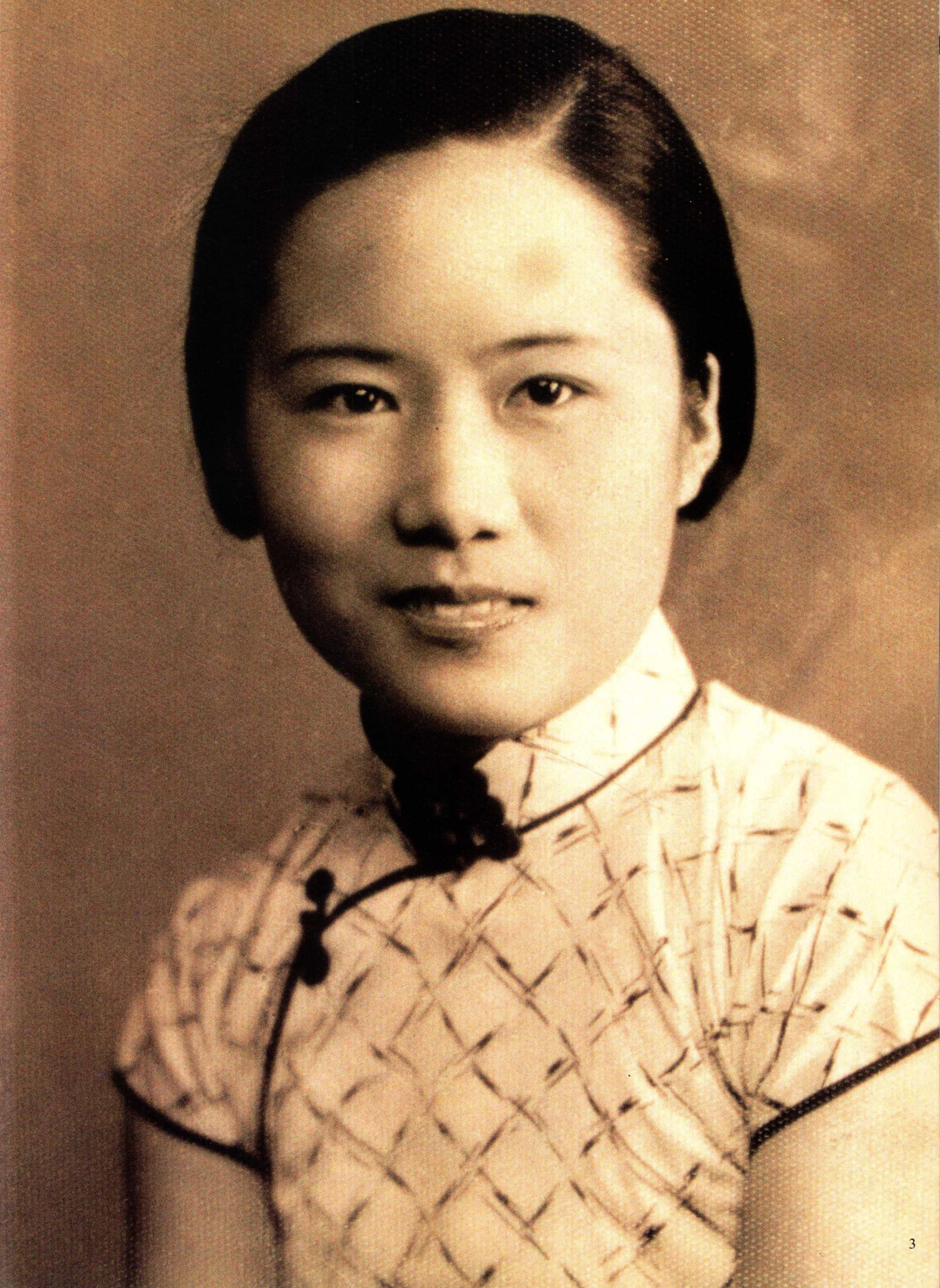
Dr. Chien-Shiung Wu was born on May 31, 1912 in a learned family in Liuhe Town of Taicang City south of Yangtze River. Under the guidance of her father Wu Zhongyi, an open-minded scholar, Chien-Shiung Wu finished her primary education in Ming De Primary School for Girls founded by her father. During this period it was her father who gave her most important inspiration and enlightenment. Dr. Chien-Shiung Wu once said: "My father is an educator. He surpasses his time."

Upon her graduation from primary school, Dr. Chien-Shiung Wu, with excellent marks, entered No. 2 Normal College for Girls in Suzhou, where she met China famous thinker Hu Shi. Hu' idea "bold assumption, careful confirmation" exerted far-reaching influence upon Wu's later scientific research. Wu once mentioned in her letter to Hu Shi that apart from her father, Hu Shi was the most influential person in her life.

In 1930, Dr. Chien-Shiung Wu was recommended to study in the Mathematics Department of the National Central University in Nanjing. In 1931, Wu made the most important decision in her life: she gave up mathematics and began to study physics. From that time on, under the guidance and instructions of famous teachers such as Shi Shiyuan, Fang Guangqi, Zhang Yuzhe, Ni Shangda, Dr. Wu began her life-long scientific exploration and research.

In 1936, like many other ambitious youth of that time, Dr. Wu went to the U.S. A. to pursue her graduate study with the support of her father and her uncle Wu Zhuo-zhi. She first studied in the University of California at Berkeley, then taught in Smith College and Princeton University, finally continued her teaching in the University of Columbia until her retirement. For those years, being a doctor of science, professor, Academician of the American Academy of Sciences, President of American Physics Association, Dr. Wu reached the acme of her career, received an avalanche of honors and praises. Her name became known to people all over the world and her fame went down in history.

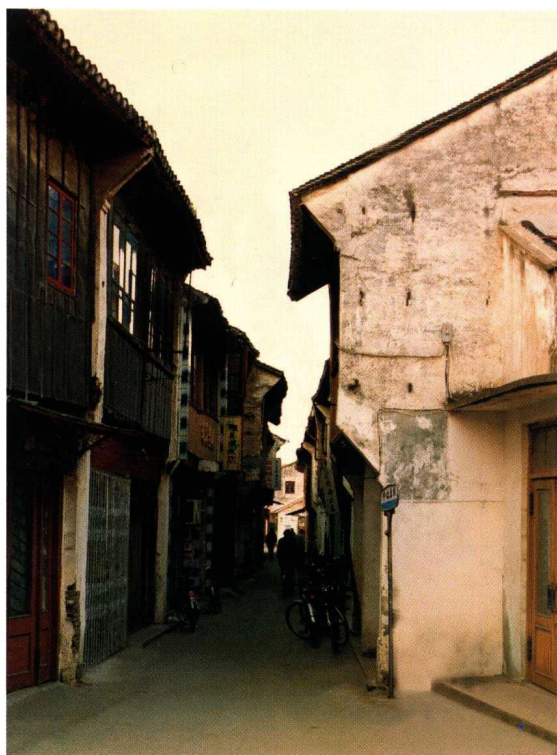
Dr. Chien-Shiung Wu's career was glorious; her family life was also full of happiness. On May 30, 1942, Dr. Chien-Shiung Wu and Dr. Luke C. L. Yuan, also a famous physicist later, got married. In their life-long journey, Dr. Chien-Shiung Wu and Dr. Luke C. L. Yuan, lived and worked together, inspired and encouraged each other. The couple lived the most modern and also most traditional, and above all, the most admirable marriage life.





家乡浏河

Dr. Chien-Shiung Wu's hometown Liuhe Town



浏河古镇街景

The old street of Liuhe Town



父亲吴仲裔与母亲樊复华
Father Wu Zhongyi and Mother Fan Fuhua



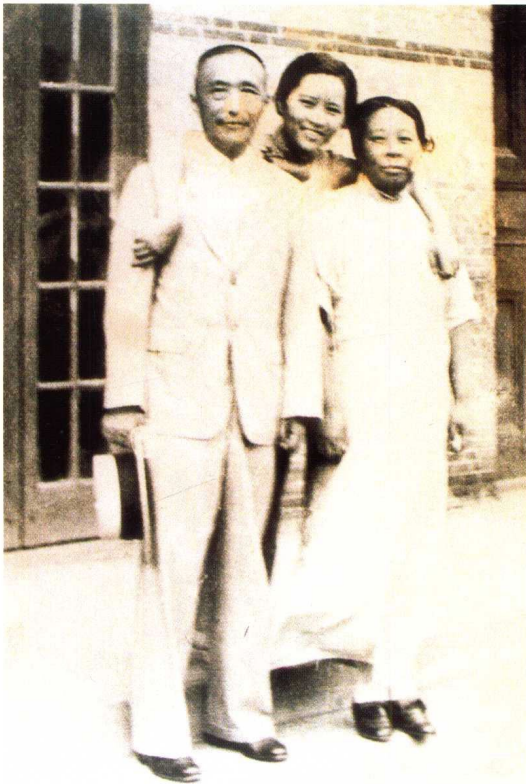
幼时的吴健雄与父亲吴仲裔、母亲樊复华、哥哥吴健英（左二）合影
Chien-Shiung Wu in her childhood with her father Wu Zhongyi, mother Fan Fuhua and her brother Wu Jianying (second from l)



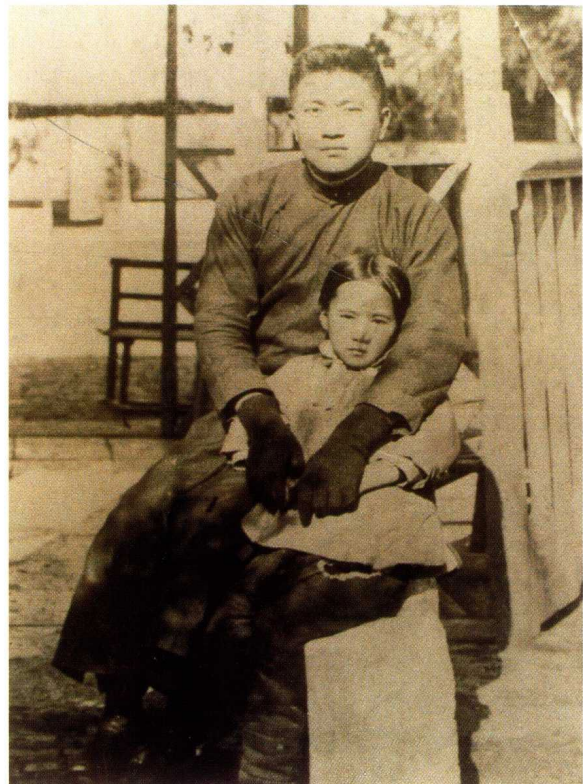
1928 年的吴健雄
Chien-Shiung Wu in 1928



与父亲和家人合影
Chien-Shiung Wu with her family



出国前与父母合影（1935年）
Chien-Shiung Wu with her father and
mother before going abroad, 1935

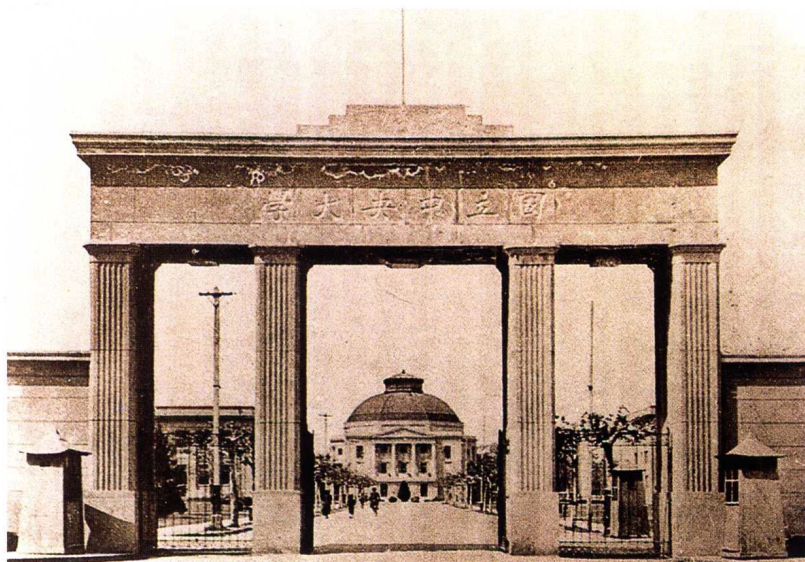


幼时的吴健雄与叔叔吴琢之
Chien-Shiung Wu with her uncle Wu Zhuozhi

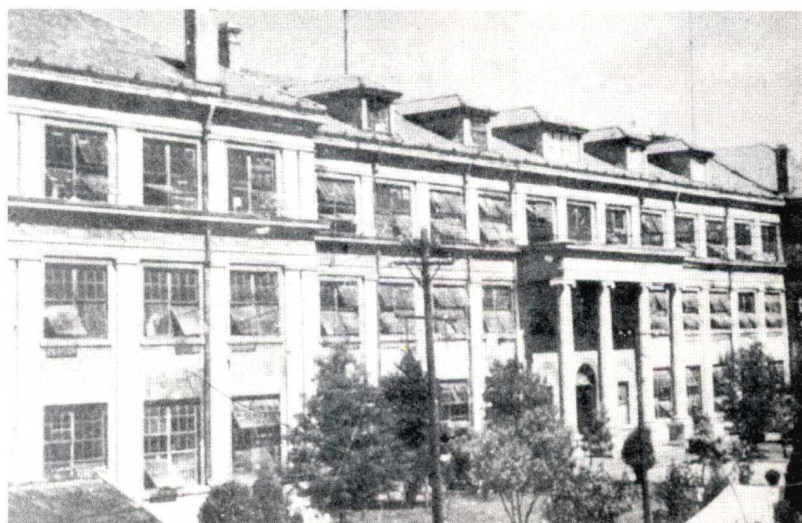


国立中央大学毕业时的吴健雄

Chien-Shiung Wu when graduated from The National Central University



国立中央大学校门（南京四牌楼）
The university gate of the National Central University (Si Pai Lou Nanjing)



国立中央大学科学馆，
1992年更名为“健雄院”
“The Science Hall” of the
National Central University,
which was renamed as
“Chien-Shiung Hall” in 1992



1933年的国立中央大学女生宿舍
Women students' dorm of the university, 1933



30年代初与中国著名思想家胡适在上海的合影

Chien-Shiung Wu with China famous thinker Hu Shi in Shanghai, 1930s



吴健雄与在中央大学时的老师、中国著名物理学家施士元教授的合影

Chien-Shiung Wu with her teacher of the National Central University and China famous physicist Shi Shiyuan