# 中国苏铁

# CYCADS IN CHINA

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# 序言

苏铁类植物自古生代末期以来在地球植被演化过程中扮演了重要的角色，经历了漫长的兴衰而保留至今。我国亚热带以南广大地区有丰富的苏铁资源，少数种类已被广泛利用于园林观赏，有一千多年的栽培历史；更多的野生苏铁则鲜为人知，近年来却因人口增长和经济发展迅速而不断遭到破坏，研究工作和保护措施也落后于形势。

苏铁具有高度的美学价值，对维护地球生态系统，改善人类居住环境的作用不可低估，陈谭清、王定跃等有鉴于此，于80年代末开始在深圳仙湖植物园引种栽培苏铁，建立苏铁园，虽然起点较晚，但发展速度很快。90年代以来大力开展国内外合作，不辞劳苦多次深入边远山区调查搜集种质资源，兼以引进国外属种，建立了国际苏铁迁地保存中心，保存规模多达9属100种以上，堪称全国苏铁园之冠。与此同时对苏铁开展的研究工作也达到了相当的广度和深度，《中国苏铁》的出版即为明证。

本书作者以全球苏铁类群的总体为背景，着重对我国苏铁科植物进行了深入的研究，内容涉及苏铁的分类、解剖学、同工酶 、染色体、花粉形态、资源分布与保护对策、繁殖与栽培、病虫害防治和在园林上的应用等领域，全面准确地论述和揭示了国产及引栽27种苏铁的特征和特性 ，每种苏铁均配彩色照片，大部分种类配了形态插图，均系首次发表，难能可贵。

本书所列文献浩翰，并于文中广征博引，足见作者重视前人研究历史，作出分析判断，以保证各章内容准确无误。

本书是我国第一部苏铁专著。纵观全文，可以认为本书大大超过国内专业书籍中有关苏铁论述的质量，达到了国际同类专著的水平。可以预计，本书的出版必将推动我国苏铁的资源保护和引种栽培事业，对发展我国自然保护运动亦有积极的参考作用。故乐于为序。

**中国树木学协会理事长**

**南京林业大学教授**

**朱政德**

**1996年3月17日**

# Preface

Cycad plants have played important roles since late Paleozoic era over 200 million years and undergone very long history from rise to fall. Rich resources of modern cycad still scattered in South China in the past years, only a few species have been commonly used as ornamentals over 1,000 years, while most ones are still remained unknown in the wilds.

Recent years, these wild cycad populations faced serious disasters due to rapid growth either human population or economic development but the research programs and protect measures lag behind the demands.

For cycads are provided with highly aethetic value, people are easy to underestimate their functions for maintaining global ecosystem in order to improve inhabitant environment. Mr. Tanqing Chen and Dingyue Wang , editors of this work, paid great attention to cycad and its allies at the end of 1980s'. They began to introduce several species and established a proper cycad collection located at the Fairy Lake Botanical Garden in 1989, where they are working for. Though it was a little later than that of other cycad collection in China, it developed very fast. Four year afterwards, a series cooperations, abroad and at home, were fullfilled; field clollections and exchanges werealso strengthened, which caused an International Ex-situ Conservation Center of Cycads set up in 1994. The Center rapidly covered 9 genera including more than 100 species of *Cycas* and its alies, made the Center number one in China.

Then a monograph "CYCADS IN CHINA" has soon been published.

Started with the background of the worldwide cycads groups, the editors of this monograph concentrate their mind to *Cycas* in China, it consists of taxonomy, anatomy, isoenzymes, chromosomes, pollen morphology, resource distribution and protection countermeasures, propagation and cultivatuion, diseases and pests control and utilization, etc. 27 species are described with colourful photographs and illustrations which are new to science.

I affirm that this monograph would be welcome by Chinese readers as well as our foreign friends. It would be especially available for botanists and naturalists when they take part in research of cycad preservation or something like. And I also believe that this monograph would be useful to promote the campaign of natural preservation forward.

**Chu Cheng-de**

Chu Chengde

**Professor of Dendrology**
**Nanjing Forestry University**
**Dendrology Assciation of China**
**March 17, 1996**

# 前言

苏铁是一个古老的植物类群，早在古生代石炭纪便已来到我们这个地球，距今约2亿多年，而在中生代侏罗纪达到其鼎盛时期，此时恐龙正称霸世界，苏铁类群十分丰富，仅在四川宝鼎地区晚三迭世地层中苏铁类化石就达50多种，之后逐渐衰退，大部分类群相继灭绝，现存3科11属约240多种，故有“活化石”之称。苏铁分布于亚洲、非洲、大洋洲与美洲的热带、亚热带地区。

我国苏铁仅1科1属，即苏铁属(*Cycas*)，俗称“铁树”、“凤尾草”。因其形态奇特、四季常青而深受我国人民的喜爱，早在一千多年前的唐朝便有了苏铁的栽培。此外苏铁与我国的佛教文化也有着密切的联系，南方的古寺庙常常可以见到栽种年代久远的苏铁。

近几十年来，由于社会经济的迅速发展，人口的急剧膨胀，毁林开荒的现象时常发生，大批热带、亚热带森林被砍伐，苏铁的生长环境遭到了严重的破坏。尤其是近二十年来，随着花卉业的兴起，苏铁因其奇特的姿态，较高的观赏价值，野生苏铁被大量挖掘倒卖，80年代初全国出现“苏铁热”，至80年代中期“苏铁热”达到顶峰，之后由于野生苏铁资源的日趋枯竭才逐渐降温。至今国产大部分苏铁种类已处于濒危状态，个别种类如灰干苏铁如不能得到有效保护，未来几年内野生个体将趋灭绝。

由于种种原因，国内学者对苏铁的研究一直未能予以足够的重视，野外调查很不深入，苏铁蜡叶标本非常少，一般大学与研究所标本室不过几份至十几份，即使科学院的一些植物研究所标本馆也不过数十份，开展苏铁的分类研究非常困难。《中国植物志》介绍了8种苏铁，虽然以后又陆续发表了攀枝花苏铁、把关河苏铁(后被并入攀枝花苏铁)与贵州苏铁3个新种，但国产苏铁种类也仅鉴别了10种，而且对许多“老种”的认识仍然是模糊的，在实践中造成苏铁分类与鉴别的许多困难。这种情形一直延续到1992年才开始有了明显的改变。

1992年9月至11月由美国蒙格玛丽基金会、费尔彻德热带植物园和中国农业部、西南农业大学主持的92中美联合苏铁考察历时1个多月，调查了广东、广西、海南、四川、云南及贵州六个省区的苏铁分布及栽培状况，考察队伍由Terrence Walters博士带队，国内数名学者陪同，各地60多位科技人员与向导参加了此次考察，这是我国第一次较全面、较系统的苏铁考察，在我国苏铁研究史上具有里程碑的意义，其作用不仅仅是解决了一些中国苏铁的分类分布问题，更重要是这次活动引起了国内有关领导与学者对苏铁研究和保护的重视与兴趣，有力地推动了中国苏铁的研究与保护。

深圳市仙湖植物园自1989年开始引种栽培苏铁，开辟了苏铁专类园，1993年开始着手建立国际苏铁迁地保存中心。至今已引入国内外苏铁9属100多种，组织了王定跃、彭晗、谢光华同志开展了七次大型苏铁考察活动，共采集苏铁蜡叶标本500多号，5000多份，足迹遍及北京、江苏、四川、贵州、广西、云南、福建、海南及广东等省市区，查阅了全国主要标本室的苏铁标本，终于基本摸清了中国苏铁的种类及分布状况；同时进行了苏铁繁殖栽培技术的研究，开展人工授粉与种间杂交试验，开展苏铁的扦插与嫁接试验，与华南植物研究所合作开展了苏铁解剖学、孢粉学、同工酶及细胞染色体等方面的研究，与中国林业科学院热带林业研究所合作开展苏铁组织培养的试验与研究，所有这些调查、试验与研究都取得了积极的成果，在许多领域还填补了国内外空白，必将为推动中国苏铁的研究与保护发挥积极的作用。

由于时间仓促以及作者水平的限制，书中难免有遗漏与错误之处，敬请批评指正。

**编　者**

**1996年2月13日于深圳**

# Author's Note

Cycad is an ancient taxon. Early in Carboniferous of Paleozoic, cycad appeared on the earth, and reached its great prosperity in Jurassic of Mesozoic while dinosaurs domained the world. Cycad plants are very abundant, only in Baoding district of Sichuang province, more than fifty species of fossil cycad plants were found, in Triassic stratum of Mesozoic. Most taxa became extinct during its declination and more than 240 species representing eleven genera of three families are extant. So cycad has always enjoyed the reputation of being a "living fossil".

Cycads distribute in tropical and subtropical regions of Asia, Oceania and America. Only one genus of one family distributes in China, named *Cycas*, which is usually called Shutie (iron tree) or Fengweicao (Phoenix-tail grass). Chinese people love them very much because of their peculiar shape and evergreen trait, and cultivated them early in Tang Dynasty. In addition, there is close relationship between cycad and Buddhistic culture for cycads long cultivated could usually be found in the southern ancient temples.

In the past decades, the living environment of cycad met serious destruction with the rapid developement of economy as well as the tremendous increasment of population. So more and more tropical and subtropical forest have been destroyed.Especially in the past twenty years, with the development of the flower business the wild cycads have been chopped at a large scale and sold illegally for its peculiar appearance and high value as ornamental plant. In the early 80's "Cycads Craze " appeared throughout the nation and it reached its peak in the middle of 80's. Later this trendency dropped gradually for the increasing shortage of wild cycad resources. And now the mojority of *Cycas* taxa is quite scarce, a few species such as *Cycas hongheensis* are extremely rare . If they could not get effective protection, their wild individuals were doomed to vanish in the near future.

For various reasons the researchers at home have ignored the study of cycad and also the wild investigation. So the herbarium materials of cycad are fairly rare, only a few or no more than twenty copies can be found in the herbarium of common universities and institutes. Even we can just find several tens copies of dried specimens in some herbaria of botanical institutes of Academia Sinica , so it is very hard to carry out the research of classification of *Cycas*. "FLORA OF CHINA" introduces eight species of cycads, and then three new species----*C .panzhihuaensis*, *C.buanguanheensis* (believed to be a form of the former by later scholars) and *C. guizhouensis* were published, but only ten species of *Cycas* in China have been identified, and particularly the understanding aboat many old species is still vague. Therefore it is still very difficult to classify and identify cycad in practice. This situation was not changed obviously until 1992.

China 92, Cycad Expedition organized by American Montgomery Foundation, Fairchild Tropical Garden, the Ministry of Agriculture and Southwest Agricultural University lasted more than one month from September to November of 1992. It checked the distribution and cultivation of cycad in such six provinces and areas as Guangdong, Guangxi, Hainan, Sichuan, Yunnan and Guizhou. This investigation team was led by Dr. Terrence Walters and more than sixty scientists and guides joined it. This is the first time to give a complete and systematic examination of cycads in China. So it has significance of milestone in our country's study history of cycad . It not only solved some problems of the classification and distribution of cycads in China, but also arose the interest and emphasis of the authority and scholors to the research and protection of cycads, and it will surely promote the research and protection of cycads in China.

Shenzhen Fairy Lake Botanical Garden began to introduce and cultivate cycads in 1989, and opened a special collection of cycads. In 1994 the International Ex Situ Conservation Center of Cycads was set up in the garden . Up to now more than 100 species belonging to nine genera respectively have been introduced from the native and abroad. Mr. Dingyue Wang , Han Peng and Guanghua Xian performed seven investigation actions, covering Beijing, Jiangshu, Sichuan, Guangxi, Hainan, Fujian, Guangdong, Guizhou, and Yunnan and collected more than 500 numbers, 5000 copies of specimens of cycads. Having checked the cycads specimen of many national herbaria, the author finally learned the taxa and the distribution of cycads in China. Meanwhile the research of reproduction and cultivation of cycads, including the experiment of artificial pollination and interspecies hybridization, the experiment of cattage and grafting of cycads, as well as the cooperative research on cycad anatomy, palynology, allozyme, cytology with South China Institute of Botany have been carried out . The cooperative research and experiment on cycads tissue culture with the Tropical Foresty Institute has also been made . All these investigations, experiments and researches, are fruitful. Somethings in many areas are new to science, which will surely promotes the research and protection of cycads in China.

Since the limitation of time, there are certainly some defects and mistakes in this book, please pointed them out and tell us if you find.

**Authors**

**February 13,1996 in Shenzhen**

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## 第一节　苏铁的广泛用途

苏铁，又称铁树、凤尾铁、凤尾蕉。关于铁树一名的由来，相传苏铁发育须有铁分之给予，待其衰弱时如以铁粉予之，便不难恢复，以铁钉钉入干内，其效亦同，故称之为“铁树”（陈植 1984）。

我国有丰富的苏铁属植物种类资源，国内目前已鉴别的种类达25种之多，广泛分布于我国南方的广西、云南、四川、贵州、海南及台湾等省区（王定跃 1996a）。

苏铁的茎干具大而显著的皮层与髓部，其薄壁细胞内含有丰富的淀粉(陈谭清等1996a)。在我国经济困难时期(1958-1962年)，许多地方发生饥荒，苏铁产地的农民都挖掘苏铁树兜，削去树皮，切成薄片，碾成粉末在水中漂洗，除去有毒成份后制成淀粉供食用，俗称“西米”，种子也可食用，那时苏铁挽救了许多人的生命，故在广西苏铁有“神仙米”之美称。云南少数地区至今还有此现象(王定跃1996b)。贵州兴义地区的农民利用苏铁树干去皮切片作酒曲酿酒，能提高出酒率(王用平 1987)。

苏铁全身均可入药，性甘、淡、平、有小毒。羽叶收敛止血，解毒止痛；大孢子叶理气止痛，益肾固精；种子平肝，降血压；根祛风活络，补肾(郭绍荣、段桦1991，陈少卿等 1982，吴修仁 1989，黎光南 1990)。据作者调查，福建宁化县和口镇坡下村农民用苏铁树干熬汤治胃病，连江县马鼻乡农民以苏铁干顶毛用于止血，云南省富宁县职业中学王医生(中医) 告知，民间有用叉孢苏铁树干与七叶一枝花适量煮稀粥治愈肝肿大与肝癌的病例，郭绍荣、段桦 (1991) 也指出苏铁可以医治癌症。

苏铁是我国传统的观赏树种，《花镜》这样描述苏铁：“凤尾蕉一名番蕉……叶长二、三尺，每叶细尖，瓣如凤毛之状，色深青，冬亦不凋……人多盆种庭前，以为奇玩”(引自郭文扬等

## Part One　Wide Uses of Cycads

Cycad is also called iron tree, phoenix-tail iron tree or phoenix-tail canna in China which is rich in species resources of the genus *Cycas*. As far as the origin of the name" iron tree", it was said that cycad required iron powder in its developing process. And when cycad got weaker, it would be recovered if it was given iron powder. Driving in a nail into the trunk of cycad has the same effect so people called cycad " iron tree" (Chen 1984).

At present, recognized species of the genus are as many as 25 and they widespread in the South China such as Guangxi, Yunnan, Sichuan, Guizhou, Hainan and Taiwan provinces and So on (Wang 1996a).

There are big and obvious cortex and pith in the trunk and abundant starch in parenchyma cells of cycad (Chen et al. 1996a). During the period of economic depression in China (1958-1962), people in many places suffered famine while the peasants on the distribution areas of cycads dug their stumps, peeled them, cut them into slices, crushed them to powder and rinsed them in water. After eliminated toxins, they were made into starch to be eaten. People called this kind of starch "western rice". The seeds of cycads were edible too. Therefore, cycad saved a lot of lives at that time and people in Guangxi Autonomous called cycad "immortal rice". Up till now, people in a few places of Yunnan province still eat processed cycad (Wang 1996b). The peasants of Xingyi city in Guizhou province peeled the trunk of cycad, cut them into slices and made them into distiller's yeast to increase the rate of wine (Wang 1987).

The whole body of a cycad tree can be used as medicines which are sweet, light, and mild with minor toxicity. Its fronds have effect of astringent, antidote, and anodyne; the megasporaphylls can be used as a medicine for regulating the flow of vital energy and assuaging the pain caused by functional disorder of various organs and is beneficial to kidneys of human being; seeds have effect on hypertension; roots can be used to relieve rheumatic pains,colds etc.(Guo & Duan 1991; Chen et al. 1982; Wu 1989; Li 1990). During the investigation, the author found that peasants of Poxia village in Ninghua county, Fujian province decocted trunks of cycad to cure stomach trouble; peasants of Mabi township in Lianjiang county use hairs at the apex of the trunk of cycads to stop bleeding. Doctor Wang of Funing County Vocational School in Yunnan province told that there were cases that patients suffered hepatomegaly or cancer of the liver were cured by porridge of the trunk of *Cycas segmentifida* and proper amount of Manyleaf Paris. Guo & Duan (1991) also pointed out that cycads can be used to cure cancer.

Cycad is a tranditional ornamental tree in our country. "Hua Jing (Flower Mirror)" described cycad as: "phoenix-tail canna is also named foreign



1989)。苏铁全年具有大型美丽的浓绿叶丛，又有反映热带风光的绿化效果，在园林上被广泛应用。可供布置庭园及大型会场的装饰之用，也可配置于花坛中心(陈俊愉、刘师汉 1987)，既适合古代建筑的衬陪，又适合现代建筑的配植，可以用来制作盆景，羽叶可作插花配用材料，用来制作花篮、花环及花圈等装饰用品，可维持长久不凋(陈俊愉、刘师汉 1987 ，卢思聪 1991 ，陈谭清等 1996b)。

苏铁在我国具有悠久的栽培历史，深受我国人民的喜爱，与我国民俗文化与佛教文化有着极其密切的联系。

## 第二节　苏铁与我国的民俗文化

苏铁生长缓慢、寿命较长，开花期在盆栽情况下没有规律，在长江与黄河流域由于长日照及积温不够极少开花(孙可群、张应麟 1985)，于是人们用“千年铁树开了花，万年枯藤发了芽”来比喻发生了不同寻常的历史事件。在人们心目中铁树开花是难得一见的奇观，所以一旦出现苏铁开花现象，常常会在报上刊文、电视上宣传，人们争相参观，甚至在南方地区也有类似宣传报道(吕书臣、赖容焕 1995)。事实上，苏铁在我国华南地区几乎每年都开花。

我国人民不仅喜欢苏铁，常把铁树开花看成是吉祥和幸福的征兆。有的地方还崇拜苏铁，认为苏铁能避邪驱鬼，保佑人们平安、健康。福建沿海地区以往把苏铁栽种在坟墓边作为风水树；连江县有送葬后用苏铁羽叶插在门上的习俗，以驱鬼邪，愿死者灵魂早日安息；媳妇生产后娘家送鸡送蛋以示道贺，并在鸡笼上插二片苏铁羽叶，以保佑母子平安健康。据说以往连江一带天主教父做礼拜，漳州一带基督教圣父、圣母在做弥撒时都用铁树羽叶蘸水，称之为“圣水”，洒在众信徒身上，以洗去邪念，纯洁心灵；沙县一带以往有人生病时也用铁树羽叶插在家门，祈求除病消灾。虽然这种朴素的信念带有迷信之色彩，但也反映出苏铁在人们心中的崇高地位。

我国人民因深爱苏铁，所以常常把苏铁人格化，赋予其独特的象征意义。

苏铁树冠倒伞形或棕榈状，给人以富贵博大的气派，苏铁象征着高贵与权势。历史上只有在名山古刹和名门望族家园才有苏铁栽植。如今南方省市的政府机关、银行、宾馆等门前庭院常常栽植(图版Ⅰ：1-2)，即使地处温带的北京，在党和国

canna.....The leaves are 60-70cm long and every pinna is thin and sharp with the shape of a feather of a phoenix. The color is dark green even in winter.....people like to plant cycad in a pot in the courtyard....." (From Guo et al. 1989) . Cycad can be used to produce the scenery of the tropics because it has large, thick, and evergreen fronds. It is widely used in gardens. It can be used to decorate a large place for a meeting or be disposed in the center of a flower terrace (Chen & Liu 1987). It is fit for decorating either ancient buildings or modern architectures; it can be made as bonsai; its fronds can be used in making gaily decorated baskets, garlands, wreaths and can be green for a long time (Chen & Liu 1987; Lu 1991; Chen et al. 1996b).

Cycad has a long history of cultivation in our country. It is deeply loved by Chinese people and connected with the culture of folk custom and Buddhistic culture closely.

## Part Two Cycads and the Culture of Folk Custom Our Country

Cycad is slow in growth and longevous. Its blossom is irregular when it is planted in a pot. Because of the long sunshine and low accumulated temperatures in the Yangtze River and Huanghe River Valley, it seldom blooms(Sun & Zhang 1985). People always say: "A cycad of a thousand years bloomed and a withered rattan of ten thousand years sprouted" to mean that something unusual happened. To people's mind, the cycad blooming is a rare phenomenon to be seen so if it happened, it would be reported in newspapers and on TV even in some places of the South China (Lu & Lai 1995). In fact, cycad almost blooms in the South China every year.

People of our country not only like cycad but also regard cycad blooming as the sign of luck and happiness. In some places, it is worshipped and thought to be able to get rid of evils and bless people. In coastal areas of Fujian province, cycad was often planted in front of a grave to be geomantic tree. There is a custom of inserting a frond of cycad in the door after funeral to drive out evils and when a daughter-in-law gave birth to a child, her family should send her chickens and eggs and insert two fronds of cycad in a chicken cage to bless both mother and child safe and heathy in Lianjiang county. It was said that cycad fronds were used to dip in water and sprinkle the water to disciples by prests in Lianjiang county and Zhangzhou city when religious services were taken place. Cycad fronds were also inserted in a door to pray for dispelling illness and disasters when somebody fell ill in Shaxian county. Though all of this were somewhat superstitious, it reflected the holy status of cycad in the heart of the people.

Chinese people like cycad and often personify it by bestowing special significances on it.

The crown of cycad is umbrella-shaped or palmaceous that gives people an impression of the rich and powerful. Cycad symbolized nobility and authority. In history, it could be planted only in famous mountains and ancient temples and the gardens of prominent families. Today, it is always planted in front of government houses, banks and hotels of the South China (Plate I: 1-2). Even in Beijing which is located in temperate zone, a great potted cycad frequently appeared in important occasions that the leaders of our Party and



家领导人会见外国贵宾的重要场合也常布置大型盆栽苏铁以衬托隆重的气氛。

苏铁树形优美，婆娑多姿，给人以庄严肃穆的感觉。苏铁暗喻着神圣、庄严、公正与铁面无私。南国的公安、法院、海关等执法部门的大门两侧时常栽植苏铁(图版I：3)，映示着国家法律与主权尊严的神圣与至高无上。

栽培悠久、气势不凡的古铁树，在人们心目中常被奉为神树。在福建省长汀县城南汀江边水吉门的段屋有一株传家宝，人称“九龙铁”，冠幅30m$^2$，树干交错盘绕，似九条蛟龙，盘旋起舞，气势磅礴(朱功钦、刘训仁1995)，其非凡气势堪称“神州第一铁”(见图版 II：1-2)。据段氏家谱记载“九龙铁”系明朝洪武二十年栽植，至今已有609年，栽前系段氏从江西老家迁来，真正树龄恐更久远。相传光绪28年应头街发生一场大火，殃及水吉门，大火吞噬了数十间房屋。当火势逼近段屋时，只见有一长老骑着一匹宝马，手挥宝剑，口中念念有词，不久大火即被扑灭，然长老扬鞭而去。事后经查验附近的寺庙并无和尚前来救火，于是人们信奉段家铁树显神救火，后来人们在“九龙铁”前设立祭坛，把“九龙铁”奉为神树，逢年过节，家家户户必备三牲酒礼，烧香点烛，虔诚朝拜，以求吉祥平安(朱功钦、刘训仁 1995)。

作者听了“九龙铁”显神为民消灾的传说，不由得对苏铁肃然起敬，但当了解到梵安寺千年凤尾草为向往人间美好生活而化成美女来到人间，然不幸遇刺的郁伤故事，心里又久久不能平静。

据载广西贺县铺门镇梵安寺创建于宋宣和年间，建寺时栽种一株凤尾草(为四川苏铁，见图版II：3)。植株横生数尺，复起至檐口分作五枝，共有四丈余长，皆下垂朝东蜿蜒，盘地起伏，枝叶常青，秀绿成荫，永保龙翔凤翥。由于代远年深，曾化美女入凡。寺之西侧，有栖真观，明末在此设学塾，住有学童。一年，塾师发现一俊秀门生，脸容肌体有异往日，问之何故，生吐露原委曰：近日有一少女每至午夜，蹁蹁而来，与我相伴，午夜时分即离去，我近日饮睡不香，尤厌学习功课，终日渴望与之厮守。塾师闻言惊诧，暗思除之。一晚，师持利剑伺于房外，霎时旋风起处，只见一美女淡抹浓妆飘至回廊，房门卡响一声便潜然无影，良久鸡鸣，美女轻盈步出房来，塾师斥去一剑，正中其身，一缕轻烟，剑影

Government met honoured foreign guests to set off the grand atmosphere.

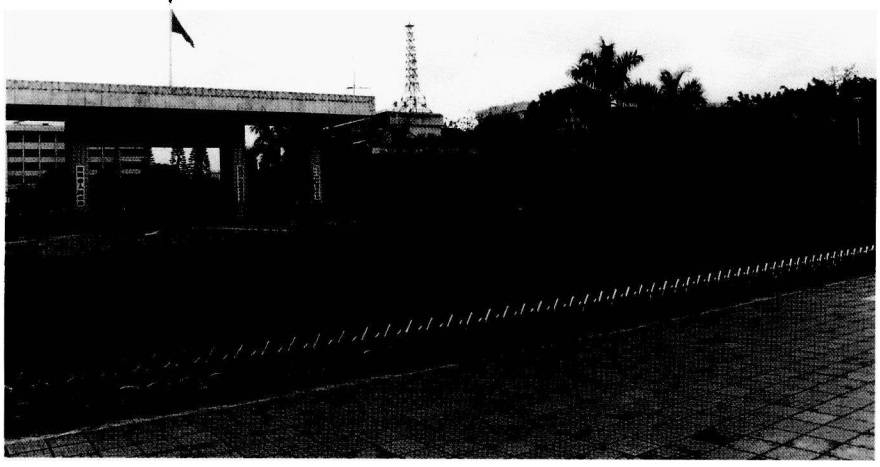
The shape of cycad is graceful so cycad left people the feeling of solemn silence. It implicated the holy, just, impartial and incorruptible. Cycad was often planted along the gate of public security organs, law courts and customs to represent the holy and supremacy of law and sovereignty of our country( Plate I:3).

And those age-old cycad were always looked upon as supernatural trees to people's mind. There is a heriloom of Duans which was called "Nine-dragon Cycad" in Shuiji Gate of Changting county, Fujian province. The width of the crown is 30 m$^2$ , the trunk crisscrosses just like 9 spiralling dragons and is of great momentum (Zhu & Liu 1995). The momentum may be rated as the No.1 cycad in China (Plate II:1-2). The genealogy of Duans reads:" the 'Nine-dragon Cycad' was planted in the 20th year of Hongwu, Ming Dynasty" and it is 609 years old. As it was removed from Jiangxi province by Duans, its real age should be much older. It was said that in the 28th year of Guangxu, a conflagration broke out in Yingtou Street and spred to Shuiji Gate. Several tens houses were engulfed by the fire. As soon as the fire approached Duan's house, an elder riding on a horse arrived. He wielded a sword and muttered incantations. A minutes later, the fire died out. The elder whipped his horse on and disappeared. After the event, none of monks of near templs claimed to have been in extinguishing the fire. Thus, people thought that the "Nine-dragon Cycad" was a supernatural tree and made its presence in the elder to put out the fire. They set up a sacrificial altar in front of the "Nine-dragon Cycad". Each and every family would prepare wines and sacrificial beasts for worshipping the cycad, burnning joss sticks and candals, to pray luck and safety on New Year's Day or other festivals (Zhu & Liu 1995).

This folklore called forth in the author a feeling of profound respect. However, when heard of a sad story of the cycad of Fanansi Temple, it was long before he calmed down.

According to records, a phoenix-tail tree (*Cycas szechuanensis*, Plate II:3) was planted in Fanansi Temple in the year of Xuanhe , Song Dynasty when the temple was built in Hexian county, Guangxi province. The trunk grew horizontally and separated into 5 branches near the eaves of the temple. They were totally about 13m long, drooping and winding to the east. The fronds were evergreen and shaded a large area. In the west side of Fanansi Temple, a private school was set up and students lived in the late Ming Dynasty. One day, a tutor of the private school found that the complexion and body of a handsome student were abnormal. When asked the reason, the student said: " a girl came to company me recently. Every time, she came at midnight and left just before dawn. I would not like food and sleep, especially tired of studying but longed for playing with her together." The tutor surprised and inwardly determined to eliminate the girl. One night, he held a sword waiting out of the room which the student lived in. In a moment, a whirlwind stirred up when he saw a beautiful, gorgeously dressed girl moving swiftly in the winding corridor. With a crack of a door, she disappeared. A long time later when cocks crowed, she went out. The tutor hit the girl with the sword. A light mist arose then both the girl and the sword were missing. Next morning, the sword was found inserting in the trunk of the phoenix-tail tree. The tree withered gradually. The beautiful girl never returned and the student was

图版 I
Plate I



1. 政府大院前的苏铁
Cycad individuals cultivated in front of the govermental yard


2. 银行大厦前的苏铁
Cycad individuals cultivated in front of the mansion of bank

3. 海关大门两侧的苏铁
Cycad individuals cultivated besides the gate of the Custom