



飞碟探索丛书

英汉对照系列

# 科学家谈世界末日

## SCIENTISTS ON DOOMSDAY

傅民杰 编著

梁晓鹏 译

甘肃科学技术出版社

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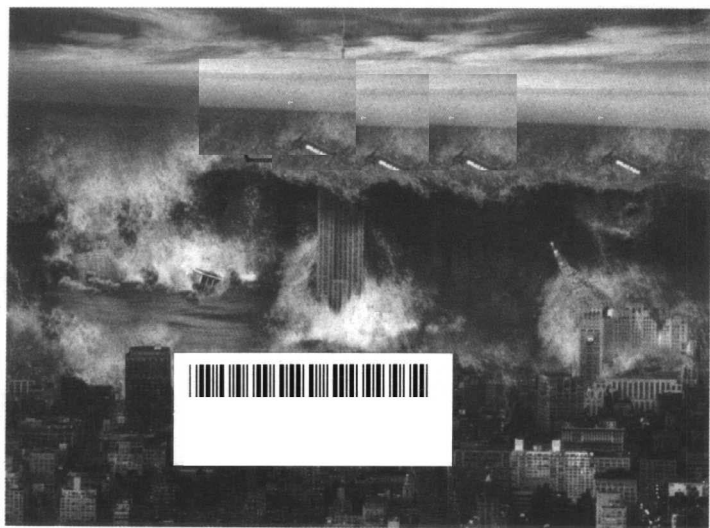
## SCIENTISTS ON DOOMSDAY

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甘肃科学出版社

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## 图书在版编目(CIP)数据

科学家谈世界末日/傅民杰编著;梁晓鹏译. —兰州:甘肃科学技术出版社, 2001

(飞碟探索丛书. 英汉对照系列)

ISBN 7-5424-0786-4

I. 科... II. ①傅... ②梁... III. 英语-对照读物-英、汉  
IV. H319.4

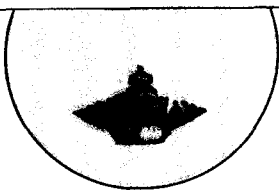
中国版本图书馆 CIP 数据核字(2001)第 074107 号

### 科学家谈世界末日

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<b>出版</b>	甘肃科学技术出版社(兰州市滨河东路 296 号)
<b>发行</b>	甘肃人民出版社发行部(兰州市第一新村 123 号)
<b>经销</b>	各地新华书店
<b>印刷</b>	兰州奥林印刷有限责任公司(兰州市红山根西路 180 号)
<b>开本</b>	850mm × 1168mm 1/32
<b>印张</b>	2
<b>字数</b>	44 000
<b>版次</b>	2001 年 12 月第 1 版 2001 年 12 月第 1 次印刷
<b>印数</b>	1 ~ 5120
<b>书号</b>	ISBN 7-5424-0786-4/N·48
<b>定价</b>	3.00 元

◎甘肃科学技术出版社图书若有  
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## 前言

有关“世界末日”的预言和说法很多，这些预言和说法大都有理有据，这一定时期内曾在许多地区乃至全球范围内引起了恐慌和不安。

前不久，美国的天文学家又意外地发现了一种极具攻击性的神秘天体，它以光速运动着，所到之处贪婪地“吞噬”着恒星和行星。天文学家的最新观测结果表明，目前，这个宇宙怪物距离地球只有几万光年远，它正朝着太阳系方向运动。

天文学家推断，在不远的将来，地球也将受到这种威胁。若按光速来计算，再过1万年时间，该物体就会到达地球。然而，天文学家认为，我们眼下尚不清楚这个神秘的宇宙天体究竟为何物，所以难以想像它到底能运行多快，或许它能以超光速10倍、100倍乃至数千倍的速度运动。若果真如此，这个宇宙怪物再有几个月时间便会出现于地球附近。

本书就事关地球人类命运的“世界末日”问题进行了科学详尽的分析和探讨。

## Predictions of the doomsday

For some time in the past, the news media of many countries reported on doomsday, human disaster, destruction of the earth, and other shocking predictions. They have made people uneasy all over the world and drawn great attention of all governments and specialists.

In a secret room under the Sphinx on the Nile, the Egyptian archeologists accidentally discovered a mysterious ancient script 4, 600 years ago. What is shocking is that, in this document, the doomsday is foretold exactly. It is not interpreted completely yet. What can be understood is: "The doomsday is in 2001. A comet is going to collide hit the earth and kick it into a cold, empty and lifeless cosmic space."

The following is the prediction made by the famous French prophet: In July 1999, king of terror will fall and mankind will perish. Disasters will come again one year after. If a very small number of people survive, they will be unable to escape a series of big earthquakes starting in May 2000. In addition, August 18, 1999 will witness a huge cross formed by the nine planets of the solar system. This means the end of the human world.

On May 17, 1994, an American magazine, World News Weekly, published a shocking prediction made by an American astronomer that the sun would go out in 1999. At the same time, Dr. Richard Boris, another astronomer made a similar prediction: The golden sun that is shining in our sky will be less and less bright until it goes out, because

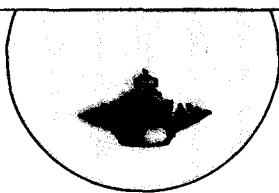
## 世界末日大预言

一个时期以来,许多国家的新闻媒体相继报道了关于“世界末日”、“人类大灾难”和“地球大毁灭”等种种骇人听闻的预言和说法,从而使世界的公众产生了担忧和不安,也引起了各国政府和专家学者的极大关注。

埃及考古学家在坐落于尼罗河畔的斯芬克斯狮身人面像下的密室中,意外地发现了一部距今 4600 年的神秘古代手抄本。令世界考古学界震惊的是,该古文献中不仅预言了世界末日,还预言出世界末日到来的准确时间。这部预言手抄本眼下还未全部被破译,但据考古学家已破译出的部分内容显示:“世界末日将在公元 2001 年降临,届时,一颗彗星将与地球相撞,它将把地球从目前的轨道撞入到另一个冰冷空旷而生命不复存在的宇宙空域。”

法国 16 世纪著名预言家诺查·丹玛斯曾预言:“公元 1999 年 7 月,恐怖大王将从天而降,人类将在 1999 年灭亡。一年后,灭顶之灾又会再次降临。如果说在 1999 年那场大劫难中,还能有极少数人逃脱厄运的话,从 2000 年 5 月开始发生的一系列大地震会同样让他们难逃魔爪。人类的末日在即!此外,1999 年 8 月 18 日,太阳系九大行星将排列成一个巨大的十字阵——这将意味着世界末日的降临。”

1994 年 5 月 17 日的美国《世界新闻周刊》杂志公开发表了美国一位天文学家耸人听闻的预言:“太阳将于 1999 年熄灭!”与此同时,美国另一位著名天文学家里查德·勃雷斯博士也做出与之雷同的预测:“照亮我们天空的金色太阳不久将变得黯然无光并逐渐熄灭,因为太阳已‘寿终正寝’,太阳这个天然大火炉中的大部分



it is dead: the great part of its fuel in the big furnace is exhausted.

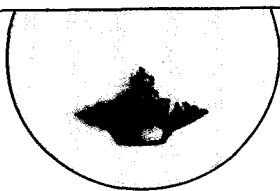
Russian astronomers foretold that the doomsday would come on May 5, 2000 when planets of the solar system will again form their union.

These are only a few. Will the human - lived earth be destroyed in certain disasters? Let's look at the comments on doomsday made by scientists.

## **Great actions awakened by the hit of the comet and Jupiter**

On July 23, 1994, 21 fragments of the comet Shoemaker - Levy 9 began rushing onto Jupiter at a speed of 20 km per hour. Its energy of impact was 1, 000 times as big as the sum of the energy of all nuclear weapons on the earth. Scientists and ordinary people began to worry about the possibility of similar collisions of comets or small planets with our earth. How likely is it? Is it going to bring us fatal calamities?

At the end of September 1994, a five - day international conference on how to protect the earth against such impacts named SPE - 94 was held in Russia. Over 200 specialists from different countries attended this meeting. They all approved of a letter of appeal to the whole world whose contents are as follows:



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‘燃料’已消耗殆尽。”

俄罗斯天文学家预言：“公元 2000 年 5 月 5 日，世界末日将会来临，因为这一天，地球人类将再次迎来太阳系群星联珠的宇宙悲剧。”

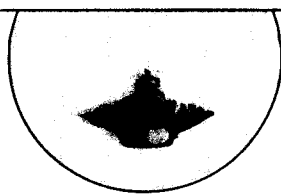
凡此种种的大预言，众说纷纭。难道地球人类真要遭遇灭顶之灾而毁灭吗？看看科学家们对“世界末日”是如何评说的。

### 彗木大撞击唤醒大行动

1994 年 7 月 23 日，“苏梅克 - 利维 9 号”彗星的 21 个碎块以约 20 千米每小时的速度撞入木星，其撞击能量约等于地球上全部核武器能量总和的 1000 倍。然而，在这令世人脉搏狂跳的彗木大撞击之后，让科学家们和广大公众忧心忡忡的是，类似这些彗星和小行星的危险天体能否与地球相撞？其撞击几率有多大？会不会给人类带来灭顶之灾？

1994 年 9 月底，在俄罗斯的斯涅任斯克举行了为期五天的“防止地球撞毁国际会议 (SPE - 94)”，来自不同国家的 200 多名专家学者出席了会议。全体与会者一致通过和签署了“防止地球撞毁国际会议告世界呼吁书”，该文件全文如下：





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### Appeal to the world made by SPE - 94

*Citizens of the world:*

*An international meeting is held in September 1994 in Russia discussing the prevention against the earth's destruction. We participants wish to call the attention of the whole world to the potential collision of the earth with small planets or comets.*

*In July 1994, the cruel fact of the comet's collision against Jupiter showed the existence of realistic threats. However, such impact means the destruction of mankind as far as the earth is concerned.*

*We have realized this great threat of the future and therefore determine the level of human science and technology so that we can dedicate ourselves to make true the ideal of mankind and our own values.*

*We have realized the responsibility of the people of all countries and international societies to fight against the happening of such a tragedy on the earth.*

*We are determined to reinforce the efforts of and cooperation between specialists and scholars of the world. We appeal to our colleagues to pay attention to this problem and suggest a world - wide research into the predictability of such collisions and the likelihood of preventing against them.*

*We have signed the letter of appeal to call the attention of all scientists, researchers, leaders, industrial enterprises, social groups, foundations, companies, businessmen and all those who are concerned to support our proposal.*

*Russia*

*09 / 30 / 1994*



## 飞碟探索丛书

### 防止地球撞毁国际会议(SPE-94)告世界呼吁书

世界公民们：

1994年9月在俄罗斯的特涅任斯克市举行了“防止地球撞毁国际会议”(SPE-94)。我们作为与会者呼吁国际社会，对地球未来存在不可避免与小行星和彗星相撞而威胁人类的潜在危险予以关注。

1994年7月，“苏梅克-利维9号”彗星的碎块与木星相撞的严酷事实更加显示出这一现实威胁的客观存在。然而，对地球而言，这种星球大撞击则意味着当今人类文明的毁灭。

我们意识到这一未来的巨大威胁，从而确认人类社会的科学技术水平，以致力于实现全人类的理想和自身价值。

我们意识到各国人民和国际社会为防止这一地球悲剧的发生所面临的责任。

我们决心加强世界各国专家学者间协调一致的努力与合作。我们呼吁国际同仁对这一问题予以关注，建议在国际合作范围内，开展对地球同危险宇宙天体相撞的巨大威胁及其防止的可能性进行评估和预测性研究。

我们签署了该呼吁书，号召世界各国的科学家、科研机关的领导者 and 研究人员，工业企业、社会团体、基金会、公司，商行的商人以及所有为此而担忧的公民们，请对我们的这一倡议给予支持。

于俄罗斯

1994年9月30日

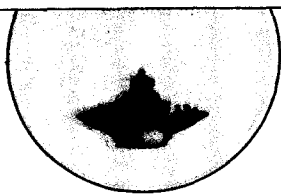
Researchers in U. S. A. and Canada have drawn a relief map of the earth according to space photos and are surprised to find 52 meteor craters – traces left by the impact of heavenly bodies including small planets. These craters are 100 to 150 kilometers in diameter. However, this map does not cover the stretch of thousands of kilometers of Siberia, Mongolia, China and ocean beds where undoubtedly exist bigger wounds of the past.

Up to now, hits from the universe have never stopped: droppings from the universe reach 200, 000 tons each year, most of them are small pieces and rarely catch attention. But some came together in the atmosphere to form big clots which impressed the people of the world deeply. However, in the 20th century, we were lucky to survive five universal tragedies.

The first survival in 1908: The explosion at Tunguska still in debate today flattens 2, 250 sq km of forest nearby, affecting as far as St. Petersburg and its surrounding areas and its traces still remains.

The second survival in 1947: A 70 – ton siderite rushed into the atmosphere and broke into a “siderite rain”, leaving 24 craters and 98 funnel – shaped marks on the earth. A total of 3500 pieces were collected.

The third survival in 1948: Comet Ikeya – Seki with 300, 000 kilometer tail barely missed the earth. It should be known that bad effect may be brought to the earth’s atmosphere by comet’s tails. The latest observation with the aid of modern probing instruments shows that serious destructive results have already formed in the atmosphere with the invasion of tails.



## 飞碟观察丛书

美国和加拿大的研究人员根据地球航天照片绘制了一幅地球表面地形图,他们从该地形图上惊奇地发现了 52 个陨石坑——各种宇宙天体撞击地球留下的星伤,其中包括小行星。有些陨石坑的直径为 100 千米~150 千米。然而,这一地形图却不包括从西伯利亚至蒙古和中国长达数千千米长的地域以及世界大洋底部,这些地方无疑残留着更大的昔日星伤。

迄今为止,来自宇宙的撞击从未停止过——每年陨落到地面的宇宙物质平均可达 20 万吨,大部分物质都是微小碎块,很少引起更多人的注意。可是,有些物质在穿过大气层时形成凝块,有些较大的凝块陨落物会给那个时代的人留下深刻印象。然而,在 20 世纪,使我们这几代人深感幸运的是——命悬尖桩的人类已幸运地躲过了五次宇宙悲剧。

第一次——1908 年:迄今科学界仍争论不休的通古斯大爆炸,爆炸地点方圆 2250 平方千米的原始大森林受到轰击,当时远至圣彼得堡及其周围的地区和村镇都受到波及,爆炸所产生的各种痕迹一直残留至今。

第二次——1947 年:一块重 70 吨的大陨铁闯入大气层,在那里解体碎裂成“陨铁雨”散落到地面,从而在地面上形成 24 个陨石坑和 98 个漏斗形坑痕,最终共收集到 3500 块陨铁。

第三次——1948 年:“伊凯-塞卡”彗星与地球擦边掠过,其长长的彗尾延伸了 30 万千米长。须知,彗星的彗尾掠过大气层时能对地球大气环境的稳定性产生不良影响。借助现代化探测器对地球大气的最新观测结果表明,地球大气已出现了由彗尾带来的破坏性后果,受损程度甚大。



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The fourth survival in 1968: an asteroid named Icarus almost scraped the earth and a huge tragedy was avoided. According to calculations, with a diameter of 1.5 kilometers, the asteroid might have released an energy equivalent to that of 37,500 modern H-bombs put together if it had hit the earth and a trillion ton of dust might have been raised to block solar radiation which would lead to the “winter of the universe”. A great number of observations show that Icarus comes close to the earth on its orbit every 19 years and with each approach its orbiting track is influenced by the earth’s gravitational field. This means that it is closer to the earth and therefore more and more dangerous.

The fifth survival in 1989: an unnamed asteroid with a diameter of around 800 meters had been close to the earth for as long as 6 hours, and then flew across the earth’s path. It was discovered accidentally by American astronomers. From destructive measure of astronomy, a crasher 100 meter in diameter might bring global disaster if it hits the earth.

The five major events above occurred in the past hundred years and many other dangers of collisions were also observed. These heavenly bodies of tens to hundreds of kilometers in diameter have not yet named in astronomy and their number has exceeded 50,000.

As to their quality, the smallest asteroids are several tons, and bigger ones may reach gigatons or even trillion tons. However, their total is only 1/1,000 that of the earth. They are mainly moving along the periodic orbit in the asteroid zone between Mars and Jupiter. However, the most active asteroids may stray away from the zone and



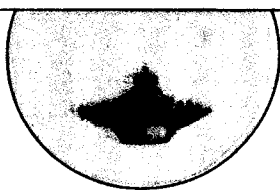
## 飞碟观察丛书

第四次——1968年：一颗名为“伊卡尔”的小行星与地球险些“擦肩而过”，谢天谢地，一场大悲剧幸免发生！据计算，“伊卡尔”小行星的直径为1.5千米，假如这颗小行星与地球相撞，所释放出的巨大能量则相当于37 500颗现代级当量的氢弹同时爆炸所释放的能量之和。由于这一撞击引发的大爆炸所产生的1万亿吨尘埃将久久地遮挡住到达地表的太阳光辐射，从而带来导致世界末日的“宇宙之冬”。天文学家的大量观测表明，“伊卡尔”小行星经地球轨道近地点的运行周期为19年，它每运行一个周期，地球引力场都会对其轨道产生影响，从而使它离地球越来越近，因此，对地球的威胁也越来越大。

第五次——1989年：一颗尚未被取名并无天文学编号的小行星与地球近距离遭遇长达6小时之久，然后同地球相错而过，横穿地球轨道。这颗无名小行星是美国天文学家偶然发现的，它的直径约800米。从可能导致悲剧的天文尺度来看，只有直径达100米的“不速之客”同地球相撞时才会导致全球性悲剧。

可见，上述五起事件均发生在100年间，这当然是些令世人瞩目的“不速之客”入侵事件，通常，小行星接近地球的危急情况相当多见。天文学上尚未给这些直径几十千米至几百千米的天体命名，这些天体的数量目前已超过5万颗。

至于这些小行星的质量，最小的小行星只有几吨重，更大的小行星质量可达几十亿吨乃至几万吨，不过，它们的总质量也不过是地球质量的1/1000。这些小行星主要在火星与木星之间的小行星带范围内沿周期性轨道运行。不过，那些最活跃的小行星偶尔也会逃逸出小行星带而闯入地球引力圈，在与地球较之月球更近



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break into the gravitational scope of the earth and wander nearer to the earth than the moon.

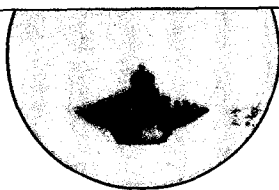
The first conclusion reached by the participants is that the threat from heavenly bodies is realistic, so watch must be kept all the time against the outer space far and near. In the history of human civilization we have for the first time brought science and technology to such a height: the modern earth man can face with his own power any "uninvited guest" from the vast sea of planets and stars.

The second conclusion is that the modern science and technology can fully protect the earth against threats from outer space with the help of nuclear means.

Meanwhile, the alarm bell of possible tragic destruction has been rung, and the men of science would not rest easy at all. Specialists from Siberia, Ural, Moscow, St. Petersburg, Kiev, Alama - Ata, Arizona, and Los Alamos gathered here to give suggestions to rid man of dooms.

For this purpose, the urgent problem for scientists is to study in computation centers to make brand - new strategies, optionally inspect and find in time the danger of collisions between the earth and heavenly bodies in orbit, and destroy them in advance.

However, in December 1994, not long after the letter of appeal issued by the meeting, American scientists shockingly pronounced the close passing of an asteroid three times as near to the earth as the moon (i. e. 1, 140, 000 kilometers). Before this, scientists foretold the unavoidable impact of this huge asteroid against the earth which would destroy all living beings on this planet. Therefore, scientists



## 飞碟观察丛书

的距离内游荡。

与会者们得出的第一个结论是，地球受宇宙天体撞击的威胁是现实存在的，因此，必须对整个宇宙空间进行常备不懈的巡天观测；既对近地宇宙空间，又对遥远宇宙空间进行观测。我们今天在人类文明发展史上首次使科学技术达到这样一个高峰——现代地球人凭借自身力量能够面对来自茫茫宇宙星海的任何“不速之客”。

第二个结论是，现代科学技术完全能够借助核导弹手段防止地球同威胁人类安全的宇宙天体相撞。

与此同时，可能发生毁灭性悲剧的警钟已敲响，这绝不会使掌握科学的人们高枕无忧。与会的西伯利亚、乌拉尔、莫斯科、圣彼得堡、基辅、阿拉木图以及美国的亚利桑那州和洛斯阿拉莫斯的专家学者云集这里，携手努力，为人类摆脱厄运献计献策。

为此，科学家们亟待解决的问题是，在计算中心研究和制定全新方略，针对那些运行轨道固定且有与地球相撞危险的宇宙天体预先有选择地进行巡天观测和及时发现，并将其摧毁在地球前沿。

然而，就在“防止地球撞毁国际会议告世界呼吁书”发布不久的1994年12月，美国科学家震惊地宣布，一颗周期性小行星险些同地球相撞，它以约三个从地球到月球的距离（114万千米）从地球旁边掠过。在此之前，科学家们曾预测，这颗体积巨大的小行星将不可避免地同地球相撞，届时，地球上的一切生灵将遭到灭顶之



and decision - making departments of all countries took urgent actions. Specialists studied to make a "plan of destroying dangerous heavenly bodies invading the earth". Edward Teller, "father of H - bombs" in America, stopped his business to develop super H - bombs thousands of times more powerful than the modern H - bombs in order to reach this urgent target.

## Study of spots on planets

To effectively protect the earth and mankind, the problem lies in that powerful measures are available against possible disasters and the probability of hits like the comet and Jupiter can be made sure. In case of powerless defense, how dangerous could such an "uninvited guest" be to the human beings? Scientists have made a great deal of investigation for this purpose. Some astronomers believe the attacks from comets and asteroids often occur in the space around the earth. The spots on the earth and other similar planets can serve as forceful proof. However, other astronomers think that those spots are not traces of comets and asteroids.

Of course, the probability of dangerous impacts may be determined on the basis of the number of these wounds both on land and under sea. If these wounds are the products of heavenly bodies, this conclusion can be made: there may be comet or asteroid landing and the doomsday may come in any month.

Therefore, scientists doubt that the various craters on the earth are not left by comets and asteroids alone and that the probability of de-