Jonathan Edwards 1703—1758

乔纳森·爱德华兹(1703—1758)

一部美国文学史大致可以分为三个阶段：最初一百年是宗教文学；接下去一百年，第十八世纪，是理性文学或政治文学；第三个阶段的前七十五年是浪漫派文学，后七十五年是写实派文学及继起的自然派文学。乔纳森·爱德华兹是美国宗教文学的最后一个杰出作家。

美国宗教文学所代表的，是清教徒的思想。“清教徒”（Puritan）在现代已成为骂人的名词。凡是律己过严，责人太苛，或对任何事情过分热心的人，都可能蒙上“清教徒”的雅号。但当初开垦美洲的英国清教徒，他们的生活确有许多值得我们爱慕之处。他们的伦理可以总括为三种美德：节制、公正、和虔敬。他们性喜恬淡，爱从简朴的日常生活中寻求乐趣。他们具有旺盛的智力，其思想之谨严有序亦大足为后人效法。

在美国，鼓吹加尔文教义最力的宗教家之中，乔纳森·爱德华兹是最后一个，也是最伟大的一个。他于一七〇三年十月五日生于康涅狄格州的温莎城（Windsor）。他是独子，排行第五，有姊妹十人。由于找不到适当的学校，他从小在家里攻读，一七一六年始进入耶鲁大学。爱德华兹幼时已流露写作天才，本集所选《飞蜘蛛》一文就是进大学之前在十二岁时的杰作。

一七二〇年九月爱德华兹毕业于耶鲁大学，嗣后在耶鲁大学所在地纽黑汶继续研读了两年神学。在纽约做了八个月长老会的牧师之后，回到耶鲁去做教师，至一七二六年辞职，去马萨诸塞州的北安普顿城（Northampton）去帮他外祖父所罗门·斯托达德（Solomon Stoddard）主持该地教区。

斯托达德死于一七二九年，剩下爱德华兹独自主持教堂。他成为一个声誉极高的布道家。

一七四七年，爱德华兹所辖教区的民众开始公开反对他，认为他的教理过分严格。他终于在一七五〇年被迫离开教堂，是年七月五日，他写道："如今我被抛弃在茫茫的人海上，我不知道自己和我那人口众多、负担重重的家庭将如何结局。"第二年他到马萨诸塞州的斯托克布里奇(Stockbridge)去给印地安人传教。他在那儿于一七五四年完成了使他闻名后世的一篇论文《意志的自由》(The Freedom of the Will)，有人说这篇论文是美国文坛对于抽象思想的唯一贡献。它将加尔文教作简明的陈述，并作合理的辩护：当宗教本身行将衰败的时候，这篇论文却给它在哲学上树立了最伟大的纪念碑。

一七五七年爱德华兹受聘为新泽西学院（即为普林斯顿大学之前身）院长。他在一七五八年一月就职，而在当年三月二十八日死于天花。临终之时，他请人把下面的遗言带给他的太太："告诉她，"他说，"我相信那种久存于我俩之间的非常联系是属于精神的，因此它将继续至永远。"富有诗意和神秘气质的他，至死还是一个谨慎的逻辑家。

THE FLYING SPIDER

May it please your Honour,

There are some things that I have happily seen of the wondrous way of the working of the spider. Although every thing belonging to this insect is admirable, there are some phenomena relating to them more particularly wonderful. Every body that is used to the country, knows their marching in the air from one tree to another, sometimes at the distance of five or six rods. Nor can one go out in a dewy morning, at the latter end of August and the beginning of September, but he shall see multitudes of webs, made visible by the dew that hangs on them, reaching from one

飞 蜘 蛛

愿此文博大人一笑。

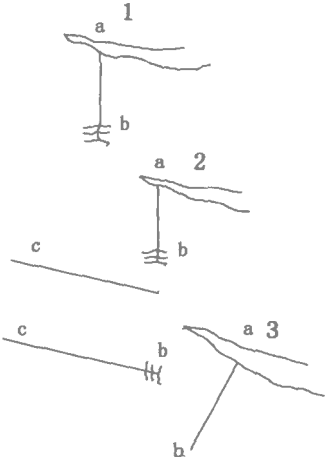
蜘蛛的某些奇异动态，我曾有幸目睹。这类昆虫的一举一动都令人惊奇，其中有些行迹实在奇妙得不可思议。凡是习居乡间的人，都晓得它们如何从树与树之间腾空而行，有时两树相隔遥达五六竿[①]。你若是在八月末梢或九月初挑一个有露的早晨，到郊外去走走，一定会看到许多蜘蛛网张在树木的枝干间，网上挂着露珠,易被肉眼所觉察。一般人都以为蛛网是在夜间织成的,它们似乎只在早晨出现。然而事实上蛛网决没有在夜间织成的。这种

①每竿相等于五码半。

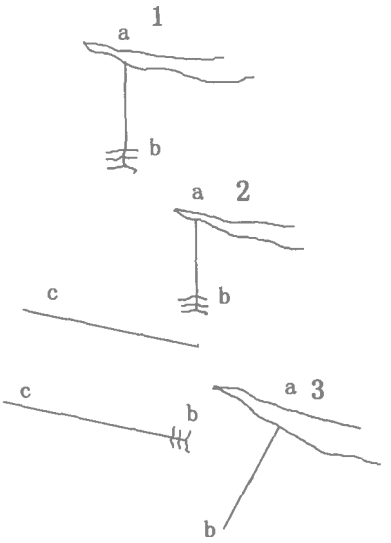
tree, branch and shrub, to another: which webs are commonly thought to be made in the night, because they appear only in the morning; whereas none of them are made in the night, for these spiders never come out in the night when it is dark, as the dew is then falling. But these webs may be seen well enough in the day time by an observing eye, by their reflection in the sun-beams. Especially late in the afternoon, may these webs, that are between the eye and that part of the horizon that is under the sun, be seen very plainly, being advantageously posited to reflect the rays. And the spiders themselves may be very often seen travelling in the air, from one stage to another amongst the trees, in a very unaccountable manner. But I have often seen that, which is much more astonishing. In very calm and serene days in the forementioned time of year, standing at some distance behind the end of an house or some other opake body, so as just to hide the disk of the sun and keep off his dazzling rays, and looking along close by the side of it, I have seen a vast multitude of little shining webs, and glistening strings, brightly reflecting the sunbeams, and some of them of great length, and of such a height, that one would think they were tacked to the vault of the heavens, and would be burnt like tow in the sun, and make a very beautiful, pleasing, as well as surprising appearance. It is wonderful at what a distance, these webs may plainly be seen. Some that are at a great distance appear (it cannot be less than) several thousand times as big as they ought. I believe they appear under as great an angle, as a

蜘蛛从不在天黑之后露水下降的时候出外工作。但这些蛛网在白天阳光的反映下，也会被留心观察的人看得清清楚楚。尤其是在傍晚，那些介于人眼和天边的蛛网，恰好反射着夕阳的光辉，看起来就特别明显。同时大家常能看到蜘蛛在树林间腾空旅行，其姿态实难以形容。但我还常看到更能令人惊异的事情。在八月杪九月初那些宁静清明的日子，我站在一所房屋或其他遮荫的背后，相隔一些距离，刚好避开眩目的阳光，然后紧靠着我的掩护物的边沿望过去，我曾见无数灿烂的小蛛网，和闪耀的蛛丝，反射着明亮的阳光；蛛丝有些延伸得极长，有些看来高达云霄，好像要在阳光中焚化，蔚为一幅美丽而动人的奇观。我站得那么远，蛛网能显现得那样清楚，这是不可思议的。有些蛛网在极远的距离下看来比它们应有之大小至少要大上几千倍。我相信它们所显现的角度很大，恰像直径一英尺的物体在那种距离下所显现的角度；光亮的物体在远距离看来总显得特别大，这和观察恒星的道理完全相同。

body of a foot diameter ought to do at such a distance; so greatly doth brightness increase the apparent bigness of bodies at a distance, as is observed of the fixed stars.



But that which is most astonishing is, that very often appears at the end of these webs, spiders sailing in the air with them; which I have often beheld with wonderment and pleasure, and showed to others. And since I have seen these things, I have been very conversant with spiders; resolving if possible, to find out the mysteries of these their astonishing works. And I have been so happy as very frequently to see their manner of working; that when a spider would go from one tree to another, or would fly in the air, he first lets himself down a little way from the twig he stands on by a web, as in Fig. 1; and then, laying hold of it by his fore feet, and bearing himself by that, puts out a web, and in Fig. 2, which is



但最令人惊奇的是，在这些蛛丝的尽头常常有个蜘蛛，它带着蛛丝在空中飞航；我总是怀着又惊又喜的心情欣赏这幅奇景，同时也指给别人看。由于我见过这些，我对蜘蛛可说颇有研究 它们那种神奇行动的奥秘究竟何在，那是我决心要设法查出来的。它们的动态，我运气很好，常能见到。当蜘蛛要从一棵树动身到另一棵树去，或者要飞行空中的时候，它先从所站的树枝上以一条蛛丝把身子荡下很短的距离(见图一)然后用前足握住它，借以支持身躯，再放出另一条蛛丝(见图二)，蛛丝从它的尾部放出，很轻快的在微风中荡漾，它爱放多长就有多长；假如蛛丝放出去碰着了一棵树的枝干，它马上就能觉察出来，旋即把蛛丝 b, c 的一端粘住刚才荡它下来的蛛丝 a, b，然后就沿着这条从它尾部放出

drawn out of his tail with infinite ease, in the gently moving air, to what length the spider pleases; and if the farther end happens to catch by a shrub or the branch of a tree, the spider immediately feels it, and fixes the hither end of it to the web by which he let himself down, and goes over by that web which he put out of his tail as in Fig. 3. And this, my eyes have innumerable times made me sure of.

Now, Sir, it is certain that these webs, when they first proceed from the spider, are so rare a substance, that they are lighter than the air, because they will ascend in it, as they will immediately in a calm air, and never descend except driven by a wind; wherefore 'tis certain. And 'tis as certain, that what swims and ascends in the air is lighter than the air, as that what ascends and swims in water is lighter than water. So that if we should suppose any such time, wherein the air is perfectly calm, this web is so easily drawn out of the spider's tail, that if the end of it be once out, barely the levity of it is sufficient to draw it out to any length; wherefore if it don't happen that the end of this web, *b*, *c*, catches by a tree or some other body, 'till there is so long a web drawn out, that its levity shall be so great as more than to counterbalance the gravity of the spider, or so that the web and the spider, taken together, shall be lighter than such a quantity of air as takes up equal space, then according to the universally acknowledged laws of nature, the web and the spider together will ascend, and not descend, in the air: as when a man is at the bottom of the water, if he has hold of a piece of timber so great, that the wood's tendency upwards is greater than the man's

的蛛丝 b, c 逸去（见图三）。我眼曾无数次让我看清这一过程。

无疑的是,这些从蜘蛛尾放出的丝,比空气还轻,因为它们一进入平静的空气中,就会向上升腾 不遇着逆风,决不下降。能在空中升腾的东西必轻于空气，能在水中飘浮的必轻于水，这是同样确实的道理。因此,如果我们假定空中静寂无风,蜘蛛从尾部放丝出去是极容易的，只要它的头一放出来，空气的浮力就足够将它拖出，长到任何程度都可以。这条蛛丝 b, c 的一端碰不着什么树枝或别的物体，它又放得很长很长，以致所受的浮力超过了蜘蛛的重量，或者说当蛛丝和蜘蛛的总重量轻于同样体积的空气之重时，那么依照世界公认的自然律，蛛丝和蜘蛛将一同在空中上升,不致下降。就像人在水底,抓住了一块大木料,其升浮的力量大于这人下沉的力量,他和这块木料将一同上升水面。因此,当蜘蛛觉察蛛丝 b, c 长度已有足够浮力将它托起时，它就放掉蛛丝 a, b(见图三),随着蛛丝 b, c 升入空中。如果蛛丝的长度并不太够,其浮力仅足平衡蜘蛛的重量,蜘蛛和蛛丝就会悬在空中,除了被风吹动外既不上升,也不下降。但假若蛛丝极长,其浮力远超蜘蛛的重量，它们就会一直升到空气稀薄的高空，在那儿蜘蛛蛛丝的总重量恰好和同样体积的空气重量相等。我曾经好多次目睹蜘蛛从我手里的一根木杖上像这样随着前面绵延不断的蛛丝升上空去 因为只要我摇动木杖,蜘蛛一受惊动,就立刻会像上述那样

tendency downwards, he together with the wood will ascend to the surface of the water. And therefore, when the spider perceives that the web b, c, is long enough to bear him up by its ascending force, he lets go his hold of the web a, b, Fig. 3, and ascends in the air with the web b, c. If there be not web more than enough, just to counterbalance the gravity of the spider, the spider together with the web will hang in equilibrio, neither ascending nor descending, otherwise than as the air moves. But if there is so much web, that its greater levity shall more than equal the greater density of the spider, they will ascend till the air is so thin, that the spider and web together are just of an equal weight with so much air. And in this way, Sir, I have multitudes of times seen spiders mount away into the air, from a stick in my hands, with a vast train of this silver web before them; for, if the spider be disturbed upon the stick by shaking of it, he will presently in this manner leave it. And their way of working may very distinctly be seen, if they are held up in the sun, or against a dark door, or any thing that is black.

Now, Sir, the only remaining difficulty is, how they first put out the end of the web b, c, Fig. 3, out of their tails. If once the web is out, it is easy to conceive how the levity of it, together with the motion of the air, may draw it out to a great length. But how should they first let out of their tails, the end of so fine and even a string; seeing that the web, while it is in the spider, is a certain cloudy liquor, with which that great bottle tail of theirs is filled;

腾空而去。如果把它们置于太阳光中，或者背衬着一扇漆黑的大门，或任何黑色的背景，就能把它们动作的情形看得清清楚楚。

现在,唯一难解的是 蛛丝 b, c (见图三)最初是如何从蜘蛛的尾部放出来的。只要蛛丝的头一放出体外，我们就很容易想像：如何由于浮力和气流的影响，它能够放得很长很长。但那样柔细的蛛丝头究竟如何脱出蜘蛛尾巴的呢？蛛丝藏在蜘蛛的体内时，它是一种雾状的液体，盛在它们瓶子似的尾部之内；一和空气接触,马上就化为固体,其质极细,具有伸长的性能。它既是液体,它们放出柔细的丝时，如何能不把液体泄出一滴沾在丝头上，这点

which immediately, upon its being exposed to the air, turns to a dry substance, and exceedingly rarifies and extends itself. Now if it be a liquor, it is hard to conceive how they should let out a fine even thread, without expelling a little drop at the end of it; but none such can be discerned. But there is no need of this; for it is only separating that part of the web *b*, *c*, Fig. 2, from *a*, *b*, and the end of the web is already out. Indeed, Sir, I never could distinctly see them do this: so small a piece of web being imperceptible among the spider's legs. But I cannot doubt but that it is so, because there is a necessity that they should some way or other separate the web *a*, *b*, Fig. 3, from their tails, before they can let out the web b, c. And then I know they do have ways of dividing their webs by biting them off, or in some other way. Otherwise they could not separate themselves from the web *a*, *b*, Fig. 3.

And this, Sir, is the way of spiders going from one tree to another, at a great distance; and this is the way of their flying in the air. And, although I say I am certain of it, I don't desire that the truth of it should be received upon my word; though I could bring others to testify to it, to whom I have shown it, and who have looked on, with admiration, to see their manner of working. But every one's eyes, that will take the pains to observe, will make them as sure of it. Only those, that would make experiment, must take notice that it is not every sort of spider that is a flying spider, for those spiders that keep in houses are a quite different sort, as also those that keep in the ground, and those that keep in

颇为不可思议；但是这种情形是见不到的，而且也无需见到；因为它们飞行前,只是把蛛丝 b, c(见图二)和 a, b 分开,蛛丝的头是早就放出来了的。至于它们如何将丝分开，我从未能看清。那么微细的一条蛛丝介于蜘蛛的大腿之间，实在难以明察。但我深信情形确是如此，因为它们在放出蛛丝 b, c 之前，必须想办法把蛛丝 a, b(见图三)从尾巴分开。后来我知道它们可以用咬断或者别种方法，把蛛丝分截。不然的话，它们就无法使自己离开蛛丝 a, b(见图三)。

这就是蜘蛛如何于相距很远的树木间行进，和如何于空中飞行之道。我虽说对此确信无疑，却不希望大家听了我的话就信以为真；虽然我能找人来作证，因为我曾把这事指给别人看过，他们也曾惊异地目睹蜘蛛的这些动态。但任何人只要肯用眼睛费力观察，都能对此信服。不过起初观察的时候必须注意：那些耽在房子里、地上、沼泽中、树洞中和朽木中的蜘蛛并不和它同类；只有树枝上的蜘蛛才是会飞的蜘蛛。它们最喜欢躲在胡桃树上，我们在年终时常见各种各色的多角形蛛网，就是这类蜘蛛织的。这类蜘蛛的数目较其他种类的要多得多。

swamps, in hollow trees, and rotten logs; but those spiders, that keep on branches of trees and shrubs, are the flying spiders. They delight most in walnut trees, and are that sort of spiders that make those curious network polygonal webs, that are so frequently to be seen in the latter end of the year. There are more of this sort of spiders by far than of any other.

But yet, Sir, I am assured that the chief end of this faculty, that is given them, is not their recreation, but their destruction; because their destruction is unavoidably the effect of it; and we shall find nothing, that is the continual effect of nature, but what is of the means by which it is brought to pass. But it is impossible, but that the greatest part of the spiders upon the land should, every year, be swept into the ocean. For these spiders never fly, except the weather is fair and the atmosphere dry; but the atmosphere is never clear, neither in this nor any other continent, only when the wind blows from the midland parts, and consequently towards the sea. As here in New-England, the fair weather is only when the wind is westerly, the land being on that side, and the ocean on the easterly. And I never have seen any of these spiders flying, but when they have been hastening directly towards the sea. And the time of their flying being so long, even from about the middle of August every sunshiny day, until about the end of October; (though their chief time, as I observed before, is the latter end of August, and beginning of September;) and they never flying from the sea, but always towards it; must needs get there at last; for it's unreasonable to suppose that they have sense

我确信其飞行技能之主要目的,并非为养生,而是为灭亡 因为蜘蛛能飞，最后亦必死于飞。自然演变的结果，我们不可能发现，但是我们能够找到使它演变的原因。陆上的蜘蛛每年被卷入海洋之中的，其数目一定大得可观。这些蜘蛛只在气候良好而干燥的时候才肯飞行；但无论在此地或别处大陆，只有风从内陆吹向海洋的时候,天气才是清朗的。例如这儿新英格兰区,陆地位于西方,海洋位于东方,好天气总是在刮西风的时候。我每次看见蜘蛛飞行，总是看它们朝着海洋的方向赶去。它们飞行的时间极长，大约是从八月中旬任何一个有阳光的日子，直到十月底为止（不过它们飞行的主要时间，是像我上面所说的，从八月杪起至九月初)。它们从不自海洋飞来,总是向海洋飞去,终必飞达海洋。如果我们以为它们飞到海边，它们会懂得停止前进，那是不合理的想法：因为其时海岸上的蜘蛛应当比其他任何地方多上几百倍，事实可并不如此。