

## 第三章 弹舱内部

Chapter 3 Their Place of Shelter



三人明白了听不到爆炸声的原因,就睡着了。 第二天早上近七点钟时,他们被狗叫声吵醒了。

米歇尔起来在沙发上找到了可爱的狄安娜,可 另一只狗始终没有出来。狄安娜吃了东西后便安静 下来。随后他们又在弹舱的顶部找到了卫星,他们 小心地把它弄下来,发现它的头撞在顶上,伤得很 重,于是喂了它几口水,并将它安顿好。

米歇尔感到如果在太阳正对着地球时发射就 好了,因为那样就可以看到陆地和海洋了。巴比康 告诉他,如果那样,就看不到月球了;如果那样,

还不如像现在这样能看到目的地更好。

这时,已经八点半了,米歇尔做主厨,做了他们在天空中第一次"大餐",并拿出一瓶他藏的葡萄酒。太阳也照了进来。

巴比康他们检查了水箱和食物储藏箱,都完好无损,这样他们就有了 足够一年的食物和几个月的饮用水;随后又检查了制氧的装置,也正常。 后来发现呼出的酸气聚集在舱底,就赶忙拿出放有苛钠的容器,摇了摇放 在底部,这样一会儿就可把毒气吸收掉。

仪器中除了有几只温度计碎了以外,其余都完好,各种工具和装植物种子的口袋也都完好,弹舱顶部堆着米歇尔的东西,他会时不时地去查看一番。



喂狄安娜吃东西



巴比康检查了火箭和其他喷火设备,也都完好,这是用来降低弹舱向 月球的下降速度的,对检查结果大家都十分满意。

窗外的美丽景色吸引着他们的视线,巴比康开始记录旅行中的景象, 而有"计算器"之称的尼切尔先生在研究他的轨道公式,计算着一组组 数据。

当这一天过去时,他们又享用了一顿美味的晚餐,之后安静地入睡了。

his curious but certainly correct explanation once given, the three friends returned to their slumbers. Could they have found a calmer or more peaceful spot to sleep in? On the earth, houses, towns, cottages, and country feel every shock given to the exterior of the globe. On sea, the vessels rocked by the waves are still in motion; in the air, the balloon oscillates incessantly on the fluid strata of divers densities. This projectile alone, floating in perfect space, in the midst of perfect silence, offered perfect repose.

Thus the sleep of our adventurous travelers might have been indefinitely prolonged, if an unexpected noise had not awakened them at about seven o'clock in the morning of the 2nd of December, eight hours after their departure.

This noise was a very natural barking.

"The dogs! It is the dogs!" exclaimed Michel Ardan, rising at once.

"They are hungry," said Nicholl.

"By Jove!" replied Michel, "we have forgotten them."

"Where are they?" asked Barbicane.

They looked and found one of the animals crouched under the divan. Terrified and shaken by the initiatory shock, it had remained in the corner till its voice returned with the pangs of hunger. It was the amiable Diana, still very confused, who crept out of her retreat, though not without much persuasion, Michel Ardan encouraging her with most gracious words.

"Come, Diana," said he: "come, my girl! thou whose destiny will be



marked in the cynegetic annals; thou whom the pagans would have given as companion to the god Anubis, and Christians as friend to St. Roch; thou who art rushing into interplanetary space, and wilt perhaps be the Eve of all Selenite dogs! Come, Diana, come here."

Diana, flattered or not, advanced by degrees, uttering plaintive cries.

"Good," said Barbicane: "I see Eve, but where is Adam?"

"Adam?" replied Michel; "Adam cannot be far off; he is there somewhere; we must call him. Satellite! here, Satellite!"

But Satellite did not appear. Diana would not leave off howling. They found, however, that she was not bruised, and they gave her a pie, which silenced her complaints. As to Satellite, he seemed quite lost. They had to hunt a long time before finding him in one of the upper compartments of the projectile, whither some unaccountable shock must have violently hurled him. The poor beast, much hurt, was in a piteous state.

"The devil!" said Michel.

They brought the unfortunate dog down with great care. Its skull had been broken against the roof, and it seemed unlikely that he could recover from such a shock. Meanwhile, he was stretched comfortably on a cushion. Once there, he heaved a sigh.

"We will take care of you," said Michel; "we are responsible for your existence. I would rather lose an arm than a paw of my poor Satellite."

Saying which, he offered some water to the wounded dog, who swallowed it with avidity.

This attention paid, the travelers watched the earth and the moon attentively. The earth was now only discernible by a cloudy disc ending in a crescent, rather more contracted than that of the previous evening; but its expanse was still enormous, compared with that of the moon, which was approaching nearer and nearer to a perfect circle.

"By Jove!" said Michel Ardan, "I am really sorry that we did not start when the earth was full, that is to say, when our globe was in opposition to the sun."



"Why?" said Nicholl.

"Because we should have seen our continents and seas in a new light—the first resplendent under the solar rays, the latter cloudy as represented on some maps of the world. I should like to have seen those poles of the earth on which the eye of man has never yet rested.

"I dare say," replied Barbicane; "but if the earth had been full, the moon would have been new; that is to say, invisible, because of the rays of the sun. It is better for us to see the destination we wish to reach, than the point of departure."

"You are right, Barbicane," replied Captain Nicholl; "and, besides, when we have reached the moon, we shall have time during the long lunar nights to consider at our leisure the globe on which our likenesses swarm."

"Our likenesses!" exclaimed Michel Ardan; "They are no more our likenesses than the Selenites are! We inhabit a new world, peopled by ourselves—the projectile! I am Barbicane's likeness, and Barbicane is Nicholl's. Beyond us, around us, human nature is at an end, and we are the only population of this microcosm until we become pure Selenites."

"In about eighty-eight hours," replied the captain.

"Which means to say?" asked Michel Ardan.

"That it is half-past eight," replied Nicholl.

"Very well," retorted Michel; "then it is impossible for me to find even the shadow of a reason why we should not go to breakfast."

Indeed the inhabitants of the new star could not live without eating, and their stomachs were suffering from the imperious laws of hunger. Michel Ardan, as a Frenchman, was declared chief cook, an important function, which raised no rival. The gas gave sufficient heat for the culinary apparatus, and the provision box furnished the elements of this first feast.

The breakfast began with three bowls of excellent soup, thanks to the liquefaction in hot water of those precious cakes of Liebig, prepared from the best parts of the ruminants of the Pampas. To the soup succeeded some beefsteaks, compressed by an hydraulic press, as tender and succulent as if



brought straight from the kitchen of an English eating-house. Michel, who was imaginative, maintained that they were even "red."

Preserved vegetables ("fresher than nature", said the amiable Michel) succeeded the dish of meat; and was followed by some cups of tea with bread and butter, after the American fashion.

The beverage was declared exquisite, and was due to the infusion of the choicest leaves, of which the emperor of Russia had given some chests for the benefit of the travelers.

And lastly, to crown the repast, Ardan had brought out a fine bottle of Nuits, which was found "by chance" in the provision-box. The three friends drank to the union of the earth and her satellite.

And, as if he had not already done enough for the generous wine which he had distilled on the slopes of Burgundy, the sun chose to be part of the party. At this moment the projectile emerged from the conical shadow cast by the terrestrial globe, and the rays of the radiant orb struck the lower disc of the projectile direct occasioned by the angle which the moon's orbit makes with that of the earth.

"The sun!" exclaimed Michel Ardan.

"No doubt," replied Barbicane; "I expected it."

"But," said Michel, "the conical shadow which the earth leaves in space extends beyond the moon?"

"Far beyond it, if the atmospheric refraction is not taken into consideration," said Barbicane. "But when the moon is enveloped in this shadow, it is because the centers of the three stars, the sun, the earth, and the moon, are all in one and the same straight line. Then the nodes coincide with the phases of the moon, and there is an eclipse. If we had started when there was an eclipse of the moon, all our passage would have been in the shadow, which would have been a pity."

"Why?"

"Because, though we are floating in space, our projectile, bathed in the solar rays, will receive light and heat. It economizes the gas, which is in every



respect a good economy."

Indeed, under these rays which no atmosphere can temper, either in temperature or brilliancy, the projectile grew warm and bright, as if it had passed suddenly from winter to summer. The moon above, the sun beneath, were inundating it with their fire.

"It is pleasant here," said Nicholl.

"I should think so," said Michel Ardan. "With a little earth spread on our aluminum planet we should have green peas in twenty-four hours. I have but one fear, which is that the walls of the projectile might melt."

"Calm yourself, my worthy friend," replied Barbicane; "the projectile withstood a very much higher temperature than this as it slid through the strata of the atmosphere. I should not be surprised if it did look like a meteor on fire to the eyes of the spectators in Florida."

"But then J. T. Maston will think we are roasted!"

"What astonishes me," said Barbicane, "is that we have not been. That was a danger we had not provided for."

"I feared it," said Nicholl simply.

"And you never mentioned it, my sublime captain," exclaimed Michel Ardan, clasping his friend's hand.

Barbicane now began to settle himself in the projectile as if he was never to leave it. One must remember that this aerial car had a base with a superficies of fifty-four square feet. Its height to the roof was twelve feet. Carefully laid out in the inside, and little encumbered by instruments and traveling utensils, which each had their particular place, it left the three travelers a certain freedom of movement. The thick window inserted in the bottom could hear any amount of weight, and Barbicane and his companions walked upon it as if it were solid plank; but the sun striking it directly with its rays lit the interior of the projectile from beneath, thus producing singular effects of light.

They began by investigating the state of their store of water and provisions, neither of which had suffered, thanks to the care taken to deaden the shock. Their provisions were abundant, and plentiful enough to last the three travelers



for more than a year. Barbicane wished to be cautious, in case the projectile should land on a part of the moon which was utterly barren. As to water and the reserve of brandy, which consisted of fifty gallons, there was only enough for two months; but according to the last observations of astronomers, the moon had a low, dense, and thick atmosphere, at least in the deep valleys, and there springs and streams could not fail. Thus, during their passage, and for the first year of their settlement on the lunar continent, these adventurous explorers would suffer neither hunger nor thirst.

Now about the air in the projectile. There, too, they were secure. Reiset and Regnaut's apparatus, intended for the production of oxygen, was supplied with chlorate of potassium for two months. They necessarily consumed a certain quantity of gas, for they were obliged to keep the producing substance at a temperature of above 400°. But there again they were all safe. The apparatus only wanted a little care. But it was not enough to renew the oxygen; they must absorb the carbonic acid produced by expiration. During the last twelve hours the atmosphere of the projectile had become charged with this deleterious gas. Nicholl discovered the state of the air by observing Diana panting painfully. The carbonic acid, by a phenomenon similar to that produced in the famous Grotto del Cane, had collected at the bottom of the projectile owing to its weight. Poor Diana, with her head low, would suffer before her masters from the presence of this gas. But Captain Nicholl hastened to remedy this state of things, by placing on the floor several receivers containing caustic potash, which he shook about for a time, and this substance, greedy of carbonic acid, soon completely absorbed it, thus purifying the air.

An inventory of instruments was then begun. The thermometers and barometers had resisted, all but one minimum thermometer, the glass of which was broken. An excellent aneroid was drawn from the wadded box which contained it and hung on the wall. Of course it was not only affected by and marked the pressure of the air inside the projectile, but it also showed the quantity of moisture which it contained. At that moment its needle oscillated between 25, 24 and 25, 08.



It was fine weather.

Barbicane had also brought several compasses, which he found intact. One must understand that under present conditions their needles were acting wildly, that is without any constant direction. Indeed, at the distance they were from the earth, the magnetic pole could have no perceptible action upon the apparatus; but the box placed on the lunar disc might perhaps exhibit some strange phenomena. In any case it would be interesting to see whether the earth's satellite submitted like herself to its magnetic influence.

A hypsometer to measure the height of the lunar mountains, a sextant to take the height of the sun, glasses which would be useful as they neared thee moon, all these instruments were carefully looked over, and pronounced good in spite of the violent shock.

As to the pickaxes and different tools which were Nicholl's especial choice; as to the sacks of different kinds of grain and shrubs which Michel Ardan hoped to transplant into Selenite ground, they were stowed away in the upper part of the projectile. There was a sort of granary there, loaded with things which the extravagant Frenchman had heaped up. What they were no one knew, and the good-tempered fellow did not explain. Now and then he climbed up by cramp-irons riveted to the walls, hut kept the inspection to himself. He arranged and rearranged, he plunged his hand rapidly into certain mysterious boxes, singing in one of the falsest of voices an old French refrain to enliven the situation.

Barbicane observed with some interest that his guns and other arms had not been damaged. These were important, because, heavily loaded, they were to help lessen the fall of the projectile, when drawn by the lunar attraction (after having passed the point of neutral attraction) on to the moon's surface; a fall which ought to be six times less rapid than it would have been on the earth's surface, thanks to the difference of bulk. The inspection ended with general satisfaction, when each returned to watch space through the side windows and the lower glass coverlid.

There was the same view. The whole extent of the celestial sphere



swarmed with stars and constellations of wonderful purity, enough to drive an astronomer out of his mind! On one side the sun, like the mouth of a lighted oven, a "dazzling disc without a halo, standing out on the dark background of the sky! On the other, the moon returning its fire by reflection, and apparently motionless in the midst of the starry world. Then, a large spot seemingly nailed to the firmament, bordered by a silvery cord; it was the earth! Here and there nebulous masses like large flakes of starry snow; and from the zenith to the nadir, an immense ring formed by an impalpable dust of stars, the "Milky Way," in the midst of which the sun ranks only as a star of the fourth magnitude. The observers could not take their eyes from this novel spectacle, of which no description could give an adequate idea. What reflections it suggested! What emotions hitherto unknown awoke in their souls! Barbicane wished to begin the relation of his journey while under its first impressions, and hour after hour took notes of all facts happening in the beginning of the enterprise. He wrote quietly, with his large square writing, in a business-like style.

During this time Nicholl, the calculator, looked over the minutes of their passage, and worked out figures with unparalleled dexterity. Michel Ardan chatted first with Barbicane, who did not answer him, and then with Nicholl, who did not hear him, with Diana, who understood none of his theories, and lastly with himself, questioning and answering, going and coming, busy with a thousand details; at one time bent over the lower glass, at another roosting in the heights of the projectile, and always singing. In this microcosm he represented French loquacity and excitability, and we beg you to believe that they were well represented. The day, or rather (for the expression is not correct) the lapse of twelve hours, which forms a day upon the earth, closed with a plentiful supper carefully prepared. No accident of any nature had yet happened to shake the travelers' confidence; so, full of hope, already sure of success, they slept peacefully, while the projectile under a uniformly decreasing speed was crossing the sky.