

## Moonwalk: Reading

1969: the middle of the Cold War. The US and the USSR were bitter enemies on Earth and archrivals in space too. The Russians had become the first country to put a man in space and around the world cosmonaut Yuri Gagarin was a household name. So the Americans were desperate to put a man on the moon - but were

they desperate enough to fake a lunar landing? "Yes," say the conspiracy theorists, "and we can prove it too!" "Rubbish!" say the experts from NASA - but then they would, wouldn't they? Here are the main arguments put forward that it was all a hoax and the response from NASA.

Arguments for it all being a hoax	Arguments against
The flag Look at the picture of the flag - you can see clearly that it is fluttering in the wind. But this is impossible! The moon has no atmosphere, there is no air and no wind. The flag should be hanging limp on the pole, not sticking out like that. The picture is obviously fake!	The Americans were prepared for this of course. Each flag is attached vertically by a pole and horizontally by a rod. If the rod is not extended properly, or twisted, the flag cannot hang straight and so it looks like it may be moving. However, when you watch the videos you will see that the flags are perfectly still.
The shadows Look at the picture which has two astronauts in and then look at their shadows - they're pointing in different directions! The sun is a very long way away so the shadows should all be parallel, not going off at different angles. The picture is obviously taken in a film studio with different lights.	Shadows do two things - they show the form of the object that causes the shadow, and the form of the object the shadow falls on. In this picture the astronauts are walking along a steep ridge with the shadows falling on either side. Anyway, if there were more than one studio light each astronaut would have more than one shadow.
The astronaut The first man on the moon was Neil Armstrong, surely he's the best person to talk to about his moonwalk. However, he's very reluctant to give interviews - perhaps he has something to hide!	Neil Armstrong is a shy person and is very unlike famous people these days who will do anything to get on TV. He has in fact given a number of interviews, he does however refuse to speak to those who call him a liar.
The background Here are two pictures, one with the spacecraft in and one from a different angle, but look - the same background is in the two pictures. How can that be? This shows that the pictures are fakes - it's a huge photograph of moon mountains and they've used the same photograph for the background.	The backgrounds certainly look similar but they are not identical. If you look closely you can see small differences in the forms. The mountains were a long way off so of course they appeared in most of the pictures.







The stars We know that space is full of stars but where are the stars in the photographs? In fact there are no stars in any of the Apollo photographs! They forgot to paint them in!	The photos were taken during the lunar day which meant that the moon was very bright. The astronauts wore white suits to deflect the heat and were also bright. The moon has no atmosphere either. As a result there was enough light to take photos but not to see the stars.
The equipment After the so-called lunar landings the Americans left behind equipment, including the lunar module. Yet looking through telescopes on Earth there is nothing visible - perhaps there is nothing there!	The lunar module has a diagonal diameter of 31 feet across the footpads. At the moment there is no telescope on Earth that is powerful enough to see something that small.
The rocks The astronauts said they brought back rocks from the moon - but these could have been collected by robots, or perhaps they're fakes as well!	The amount of people needed to make, test and launch robots would be very great but not one person has said this happened. The rocks were sent to geologists around the world, not one has said they were fakes - not even the Russians.

