

Photography in propaganda: The case of the Apollo 11 assembly a11.1103147_mf.jpg

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Abstract: - Photography in Journalism was always a very powerful tool since ‘seeing is believing’. The question whether it is allowed to ‘correct’ or modify a photograph to make it seem more vivid and truer to life is a highly debatable subject. Photography is also a tool of propaganda and a proven weapon in the hands of governments that can manipulate by large people’s feelings. In this paper it is argued that Photography was also used during the Apollo missions to the Moon as a propaganda tool to persuade the world that USA had supremacy in space over all other countries. We present the case of the assembly a11.1103147_mf.jpg from a series of photos presented to the world as ‘originals’ during the Apollo 11 mission in 1969. Our conclusion and understanding is that the ‘original’ photos composing the assembly were taken in a studio.

Key-Words: - Apollo 11, Assembly a11.1103147_mf.jpg, Moon missions, Photo manipulation

1 Introduction

On 16th of July 1969 Apollo 11 was launched from Cape Kennedy, to complete the US goal set by President John F. Kennedy on May 25, 1961. The goal was a very ambitious one, namely to perform a crewed lunar landing and return to Earth. The daring crew to perform the task were Commander Neil Armstrong, Command Module Pilot Michael Collins and Lunar Module Pilot Edwin “Buzz” Aldrin. The Moon landing was to be watched live on Earth through television and an estimated 650 million people watched Armstrong’s first steps on the Moon hearing him say the celebrated “... one small step for a man, one giant leap for mankind” on July 20, 1969 [1].

As well understood, the mission objectives were not only scientific but also political ones, as such an act would give USA a supremacy and leadership in space over all other countries on Earth. In the first line toward achieving such a goal was Photography, since ‘seeing is believing’.

Photography, nearly since its invention, has been used as a tool in Journalism with an ongoing debate as to what extent it is allowed to correct or modify a photograph to make it seem more vivid and truer to life [2]. The general public’s unfamiliarity with the technology behind Photography has many times been exploited by many, taking advantage of the willingness of the people to believe.

Such a case was the profession of spirit photography producing hundreds of often bad, faked spirit photos that has done incalculable harm to real

paranormal research [3]. Of course, politicians also have made extensive use of photography to manipulate people’s feelings especially in wartimes. Particularly the power of film propaganda has proven to be remarkably durable and it has never been challenged. Rather, governments have become more convinced that the mass media in general and cinema in particular, provide a weapon uniquely capable of effectively molding the ideology of the masses [4].

The authors, in a series of articles [5–7] have presented ample proof that photography was used as a manipulation tool to convince people that the USA has stepped to the Moon through the Apollo missions. Here a new such analysis is presented for the series of photos AS11-40-5883 to 86 of the Apollo 11 mission.

2 Part assembly a11.1103147_mf.jpg and reproduction

During the mission of Apollo 11, Buzz Aldrin took Pan 2 at 110:31:47 GET. This pan shown in Fig. 1, can be found under the title of Assembled Panoramas at <https://www.hq.nasa.gov/alsj/a11/images11.html#LROC>. The pan from due west of the ladder, on the rim of Double Crater was composed of photos AS11-40-5881 to 5891. A part assembly (a11.1103147_mf.jpg) prepared by Mauro Freschi is shown in Fig. 2 (https://www.hq.nasa.gov/alsj/a11/a11.1103147_mf.jpg). It should be mentioned that the part assembly

of Mauro Freschi can be reproduced manually in Photoshop (Fig. 3), from images AS11-40-5883 to 86 downloaded from <https://www.hq.nasa.gov/alsj/a11/images11.html#5881>.

It turns out that in order to create the part assembly it is necessary to distort all photos composing it and generally compress them in

height. As an example, shown in Fig. 3 (bottom), photo AS11-40-5884HR was distorted from its original size shown in green color to its form shown in pink to match the part assembly. Each photo is matched to the assembly extended between the two yellow horizontal lines (Fig 3, bottom). Also shown is the relevant position of every photo to the assembly, its extent and the part of each photo used.

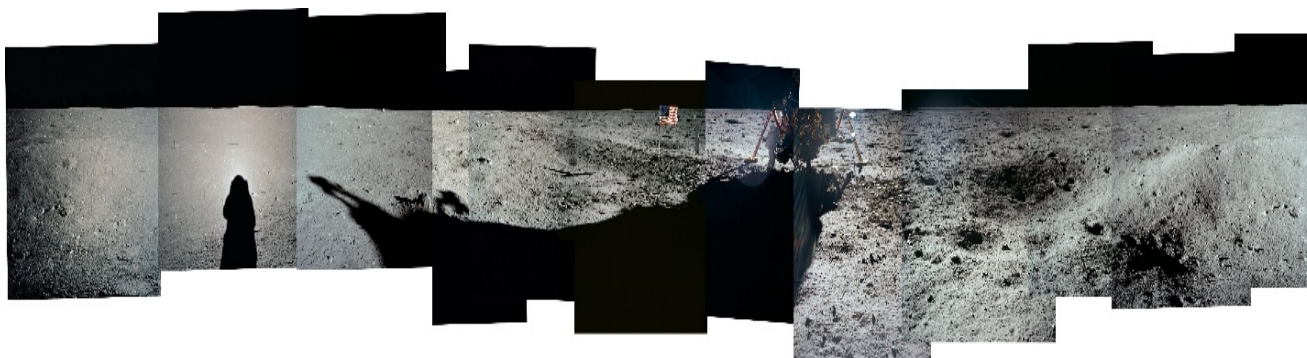


Fig. 1. Pan 2 taken by Buzz Aldrin, from: <https://www.hq.nasa.gov/alsj/a11/a11pan1103147HR.jpg>.

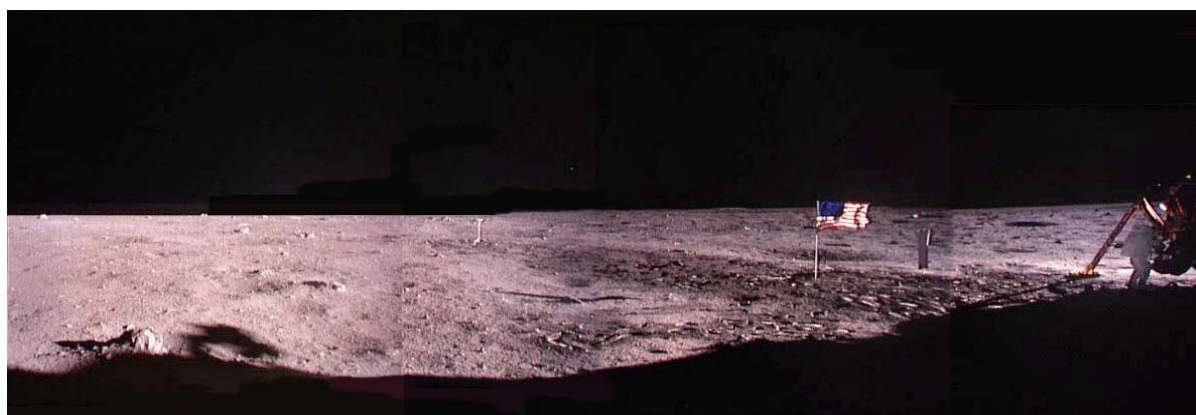


Fig. 2. Assembly a11.1103147_mf.jpg, prepared by Mauro Freschi (https://www.hq.nasa.gov/alsj/a11/a11.1103147_mf.jpg).

One can observe that it is necessary to cut a rectangular part of AS11-40-5883 at the right lower side to ensure continuity of the shadow of the lunar lander.

The sky in the part assembly covers approximately half the height of the image but on the actual Apollo mission photos only a small part of the sky is imaged, and the photos cover a larger area of the shadow of the lunar module. Comparing the original height of photo AS11-40-5884HR shown in green color, to the height of the assembly between the yellow horizontal lines shows a good match.

The above analysis indicates clearly that Mauro Freschi was using a different set of photos from those of the Apollo 11 mission. So why was it

necessary to have a set of photos imaging a large part of the sky but in the correct proportions as in the former case and another set of photos imaging more lunar lander shadow but stretched in height as in the latter case? Which of the two sets is the original one is indicated by the proportions of the image of the flag. As mentioned by NASA at <https://www.hq.nasa.gov/alsj/a15/a15FlagDeployment.html>, the Apollo 11 flag was 3 ft in height by 5 ft in width (or 91 cm × 152 cm). Reproducing the flags of the two sets (Fig. 4) and measuring them in Photoshop shows that the flag in AS11-40-5885 measures 91 cm × 121 cm and that of a11.1103147_mf.jpg 91 cm × 149 cm, indicating that the latter one shows the correct size.

It should be mentioned that a rectangular object registers its correct dimensions when viewed from the front and being in the vertical position (Fig. 5b).

When viewed at an angle it always shows a smaller width (Fig. 5a,c). The width in any photo cannot exceed that registered when viewed from the front.

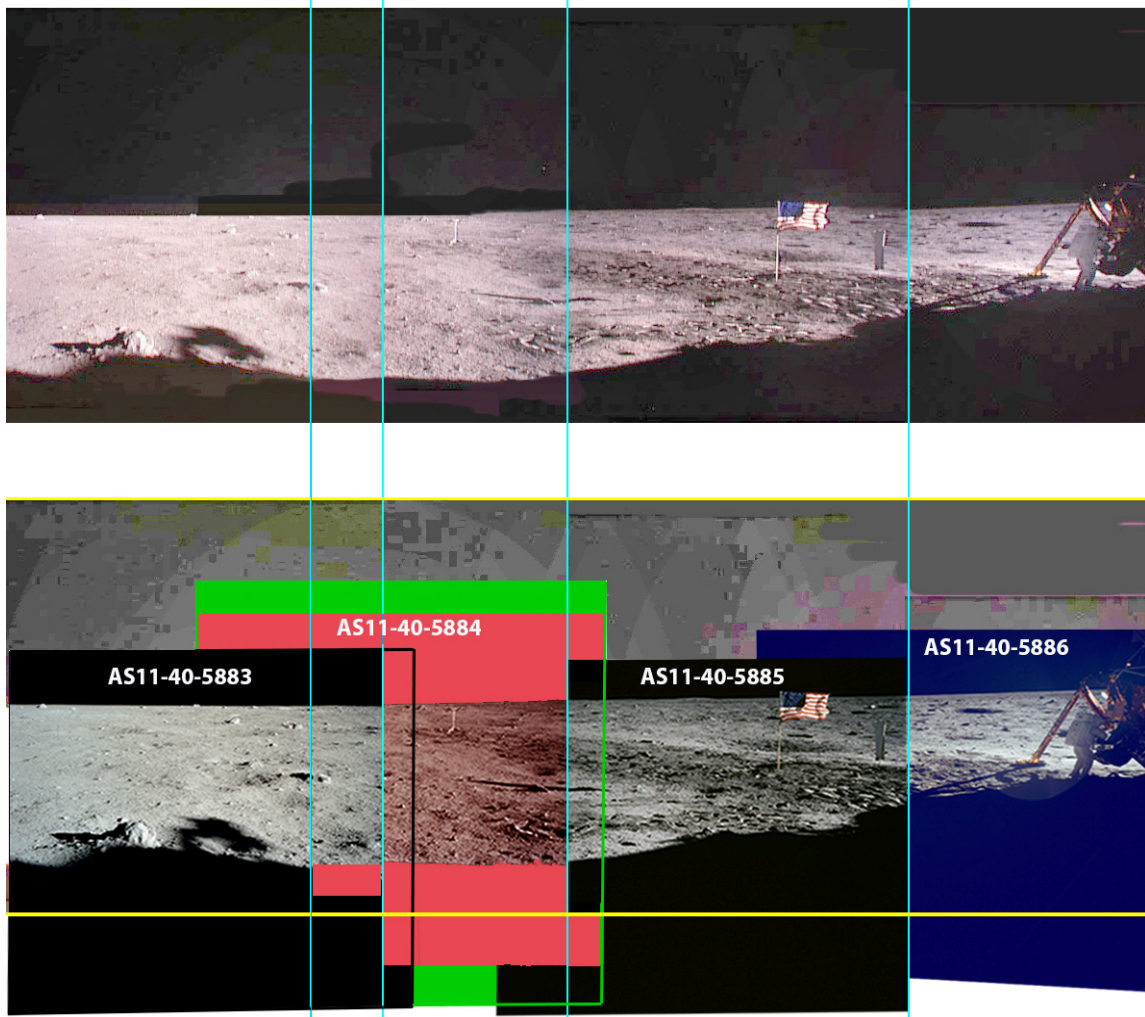


Fig. 3. Assembly prepared in Photoshop from images AS11-40-5883 to 86.



Fig. 4. Reproduction of the flags. The flag in photo AS11-40-5885 measures 91x121 cm and that of a11.1103147_mf.jpg measures 91x 149 cm. The flag in a11.1103147_mf.jpg shows the correct size.

3 Background analysis

When image a11.1103147_mf.jpg is adjusted in brightness and contrast in Photoshop, the outcome is that shown in Fig. 6.



Fig. 5. Photos of a rectangular object in the vertical position. (a) and (c) When viewed at an angle it always shows a smaller width, in this case 2.3 units in (a) and 2.2 units in (c). (b) viewed from the front, it registers its correct width (2.8 units).

Immediately one observes that there are corrections in the ‘sky’ of the assembly in various forms as follows:

- (1) There are variations in the lighting that takes specific forms, similar to those created by stage lights, as those indicated in Fig. 7.

(2) There are black thick lines that would be drawn on the assembly in order to coverup areas picturing unwanted details in what should be a totally black lunar 'sky'; for instance, to coverup glare or details that might draw unwanted attention – as, for example, at the right top site, where the last photo (AS11-40-5886) was of a larger original size, as indicated by the sky marks (Fig. 8). This photo



Fig. 6. Enhanced Apollo 11 assembly (a11.1103147_mf.jpg), showing variations in the lighting of the lunar sky, heavy black brush lines and covered areas at the horizon.

(3) There is painted and covered 'land area' at the horizon on the left site of the assembly (photo AS11-40-5883), obviously to make the horizon at this point match the adjacent photo.

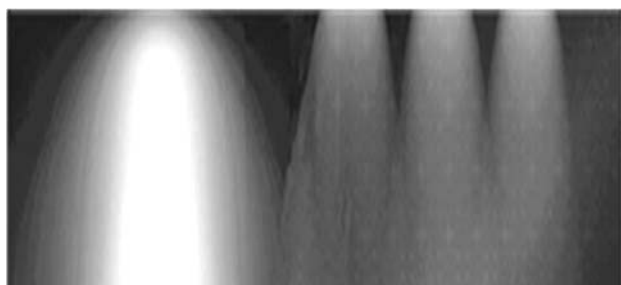


Fig. 7. Stage lights of various sizes illuminating the background.

Additionally, it is observed that on the assembly there are areas of the lunar module shadow that are painted over (bottom left half site).

It is also of interest to mention that when trying to automatically merge the images of the assembly in Photoshop it returns three parts as indicated in Fig. 9. This indicates that two photos do not merge, meaning that the photos were not part of the original set of the pan and were taken from a different point. Hence, the findings discussed on Fig. 8 are further verified.

was made smaller to match the horizon line and lunar module shadow to the previous photo (AS11-40-5885). Thus, by diminishing the size it was necessary to paint black the remaining area of the 'sky'. Also, there are changes in features to allow for the matching of photos, as for example the horizon of the second photo (AS11-40-5884) to make it match to the next one.

4 Conclusion

The above analysis strongly indicates that the original photos were captured on a stage, assembly a11.1103147_mf.jpg was then created, and details were corrected. At that time, it was decided that the lunar sky should not be imaged at the extent it was photographed. A re-photographing of the corrected photos has followed with the adding of an extra black strip at the bottom (supposedly showing the lunar module shadow). The resulting photos were then stretched in height to bring them to the correct capture size and thus, resulted the deformation of the flag.

Considering that NASA's reel AS11-40 contains photos AS-11-40-5844 to 5970, it is at least peculiar that the discussed photos above (AS11-40-5883 to 5886) should and could be staged.

Questions arise as to why NASA keeps in its archives such original assemblies as a11.1103147_mf.jpg, or other photos for that matter [5–7], that indicate clearly to those who still understand the basics of manipulating a film photograph, that the original photos were taken in a studio. Perhaps it is to uncover to the future historians, when emotions cease to exist, the truth.

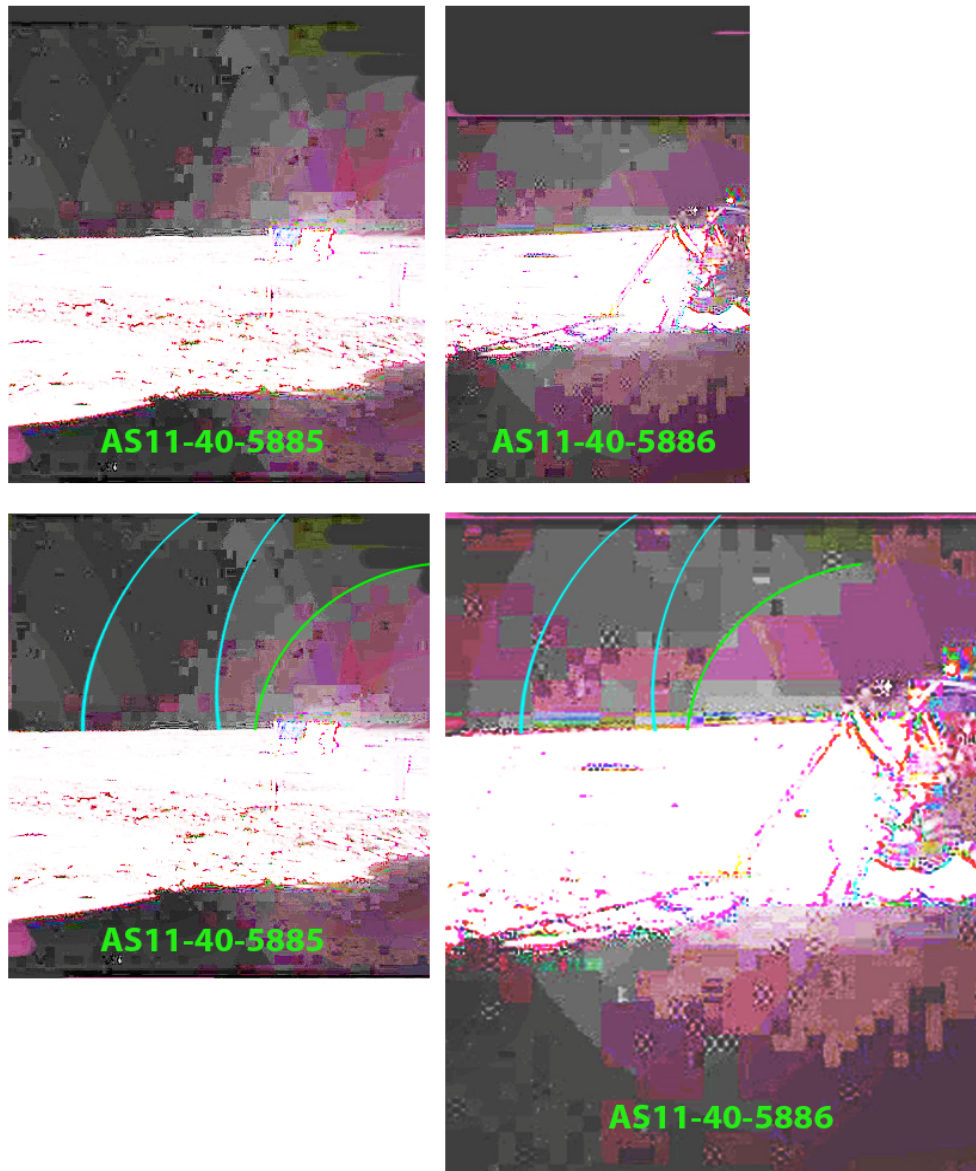


Fig. 8. Photo AS11-40-5886 (top) was diminished in size in the assembly to match the horizon line and lunar module shadow with the previous photo (AS11-40-5885). By bringing AS11-40-5886 photo to its correct captured size (bottom), a perfect match of the specific forms of the sky variations in lighting is observed.

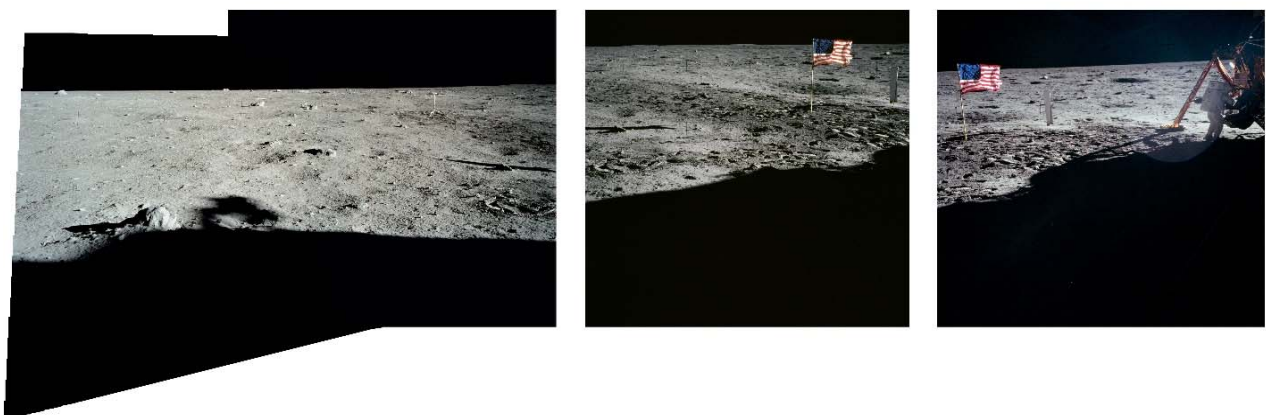


Fig. 9. Automatically merging the images of the assembly in Photoshop is not possible indicating that the two photos that do not match were probably taken from a different point.

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