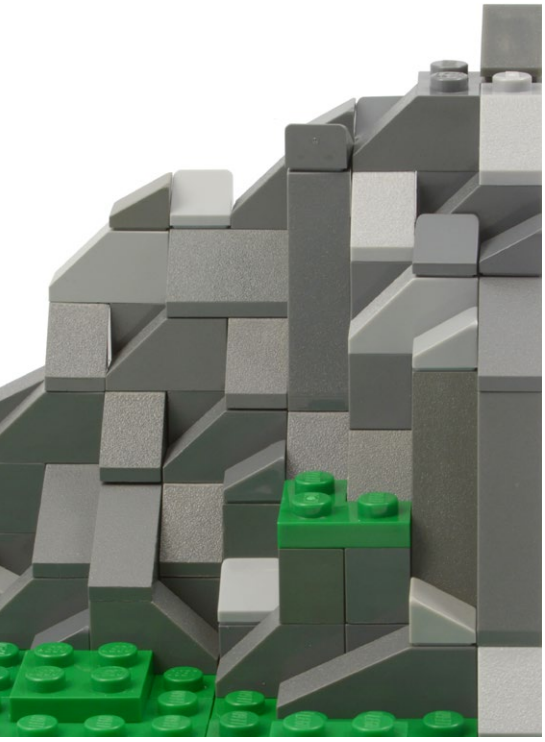


# Building an MILS Mountain Module

by Legotron (A. Bellón) ☛ abellon.net/MILS/

This article was born as part of a challenge: to describe and document the process of building a MILS mountain module for the magazine. To do this I had to use the parts I had on hand at the time, mainly bricks, plates and slopes.

Among the available pieces I had a good amount of dark bluish gray 1 x 1 x 2/3 slopes, 3 x 1 slopes, 2 x 1 slopes, 2 x 1 x 3 slopes, 1x bricks, 2x bricks, and one 4 x 10 plate.

I also had plates of different sizes and some green 2 x 4 bricks.

Before starting with the construction process of the module, it is useful to clarify a number of points:

- I already had the MILS base on which to build the mountain, so I will only comment on the construction process of the mountain itself.
- Since I was going to use my available parts, I was not going to optimize it to be as cheap as possible, nor save on the use of parts, I was simply going to try to use the parts I had available.
- In terms of aesthetics, I like the contours of my modules to have the same colours, so that they can be placed on the edges of the dioramas without them being too out of place. That's why the bricks I selected are dark bluish gray, since that's the colour I've used for the contours of my other MILS modules.
- I like to use as little variety of pieces as possible, so I have limited it to a few different references.

**1** Taking into account the available parts, I chose to make a Null-Long-Short-Null profile module as defined in the MILS standards (http://www.abellon.net/MILS/), which I could use as a corner if I only had that mountain module. At first glance, it may seem that slopes are enough to make a larger module, but it is the bricks that determine the size of the mountain that can be built.

This was the starting point, a MILS module with a completely smooth half, where I could carry out the construction of the mountain.

**2** First, I started building the contour of the mountain part that bordered the edge of the module, forming a wall of a couple of bricks in height.

**3** Then, I began to build the lower part of the mountain, starting at one end, with green plates, from the edge, to match it with the height of the brick wall.

**4** In this initial phase, it is important that the step takes on the shape of the mountain and that in the area where it joins the brick wall, it has a height that allows the pieces, generally slopes, to be placed, which will shape the appearance of the mountain, since the first pieces that give shape to the mountain are added almost immediately.

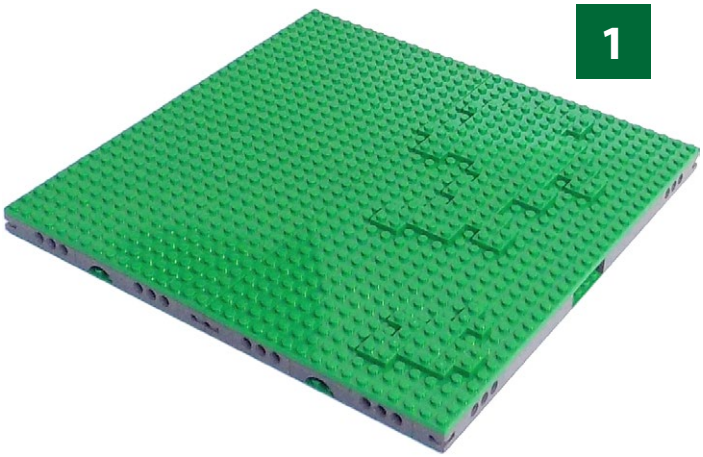
**5** When I added more staggered elements I increased the height of the brick wall, so that I could see if the height of the staggered element rose just enough to coincide with the height that a mountain module with a "long" slope must have on its contour.

**6** As we shape the mountain with the small plates and slopes, we have to try not to leave gaps, or areas with very large vertical jumps, or an excessive distance from the height that the edge should have at each point. This is a process of trial and error, and it is always better to change it when you are at the beginning as opposed to when you are already at a very advanced stage of construction.

I also took advantage of this stage to start the construction of the mountain from the other end. This other end, being a shorter edge has to have a steeper slope.

**7** As the mountain grew in height, I began to see the need to form a small terrace with which to support the supporting pieces that give firmness to the mountain. In this way it is not necessary for the interior to be solid and many pieces are saved. It is also advantageous to check the firmness of the slope in case it is necessary to add support pieces to prevent the sides from collapsing as the construction continues to climb.

**8** As the areas of the mountain under construction were being defined, in the central area, I realised that the steps of the short part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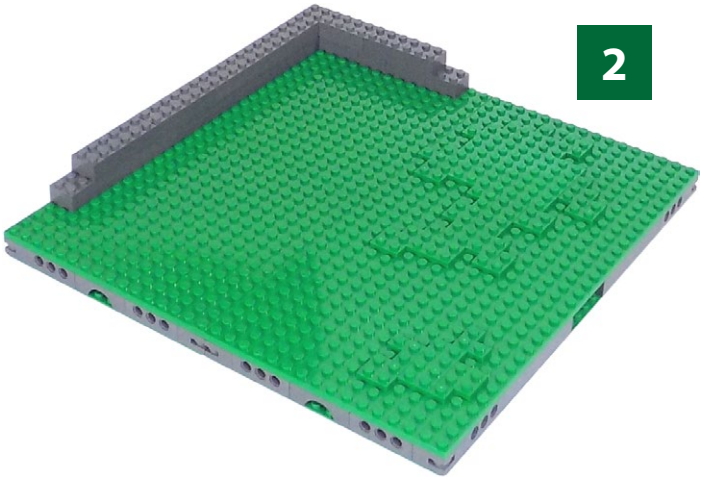
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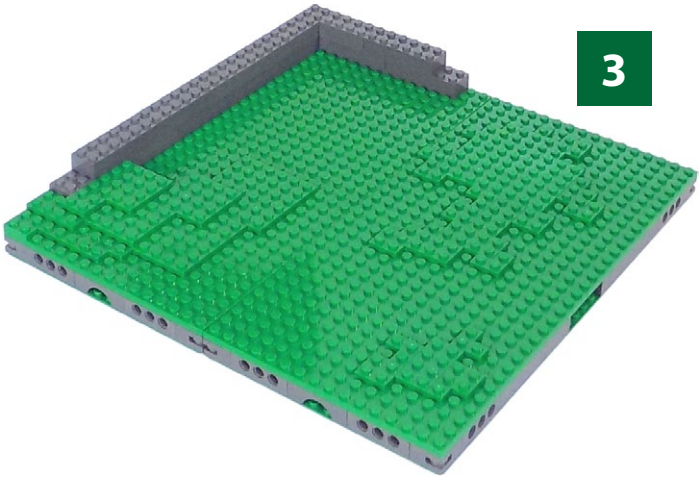
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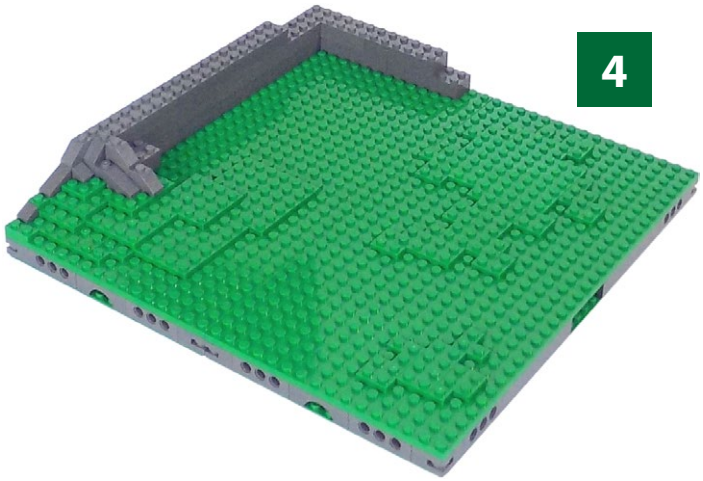
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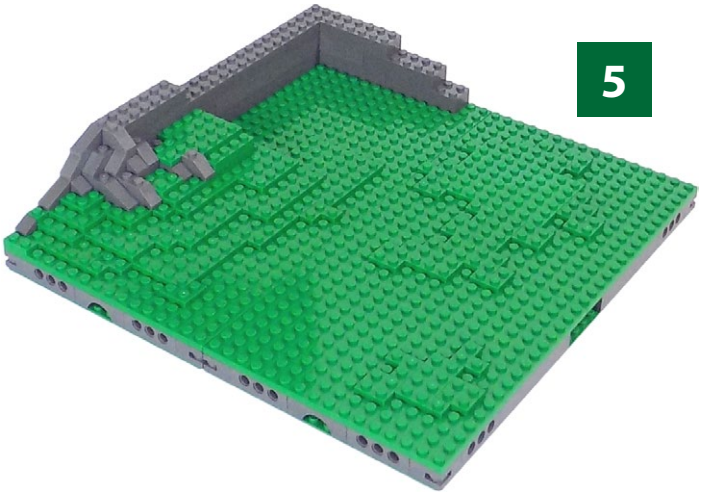
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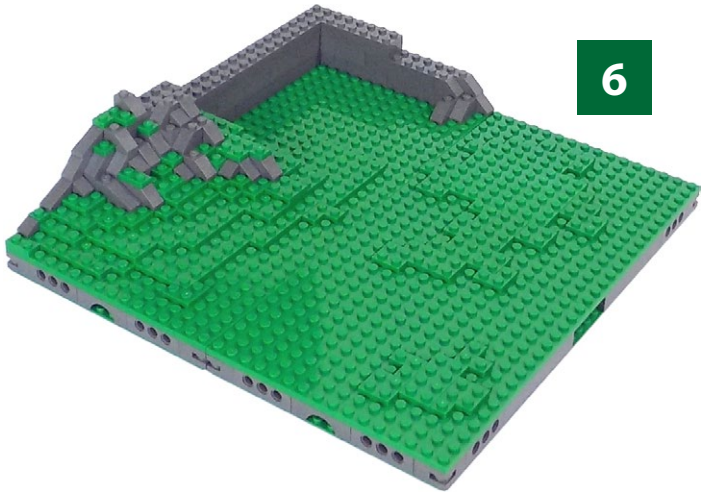
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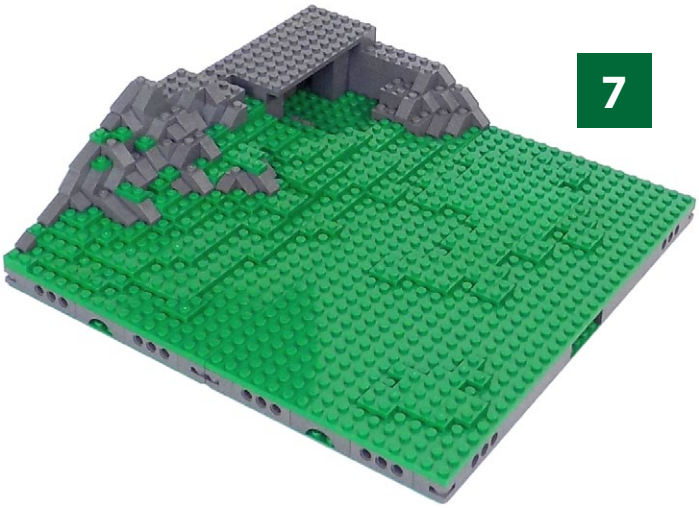
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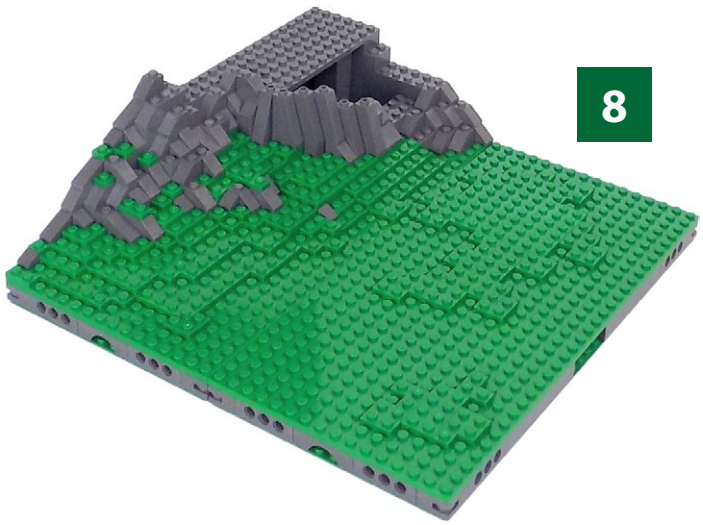
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(upper area) were not high enough to coincide with the height of the edge, so I had to resort to steeper slopes, to make the height coincide without any very abrupt cuts. I continued the wall with 2 x 1 x 3 slopes up to the area of lesser slope, forming a small bump on the hillside.

**9** At this point, it is time to discuss one of the tricks I usually use to see if the slope of the module I am building conforms to MILS standards. It's something very easy; I simply compare it with another module with the same profile. By doing this I can see if I'm staying below or above the height I need to reach.

**10** When adding new height levels it is advisable to check the general appearance, to see if there may be any gaps, or areas that are not covered with pieces. At this point I had to redo the junction area of the 2 x 1 x 3 slopes with the slope of the long edge, as there were some gaps between the slopes and it was necessary to cover them.

**11** Once the problem was solved, I continued with the construction of the slope. I decided to use that small projection to have a small flat area, where if necessary I could put a tree or place minifigs. At this point, the brick wall served to place support and reinforcement areas.

**12** As the height increased it was necessary to make more adjustments so that the new slopes could fit the shape of the mountain. This is where I had to use the small 1 x 1 and 1 x 2 bricks to avoid leaving gaps in the wall and to be able to fit the slopes coherently.

**13** The last part went quite fast as it was almost perfectly shaped to fit the slopes to the summit.

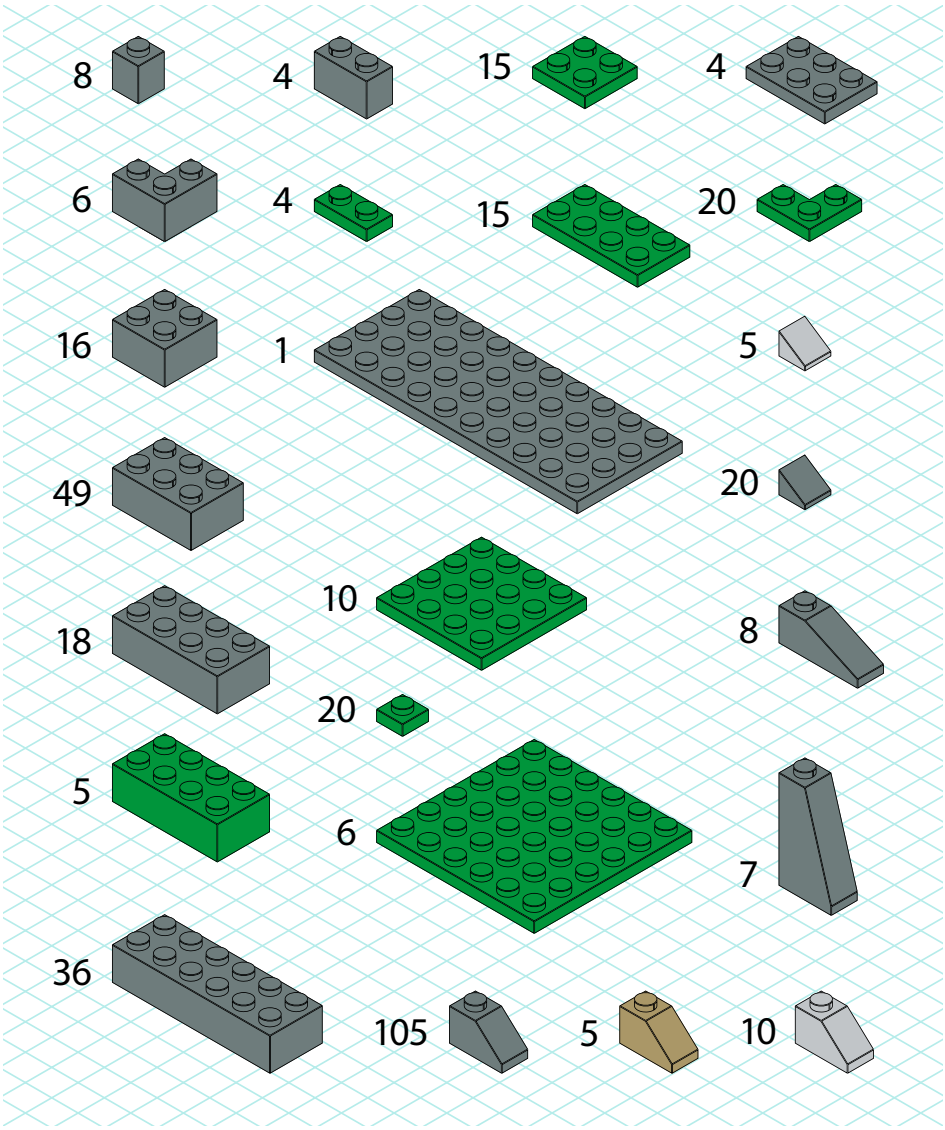
**14** With the module already finished, I proceeded to make some improvements, swapping some slopes for light bluish gray, adding green plates in areas with visible studs, so that the mountain would be more colourful.

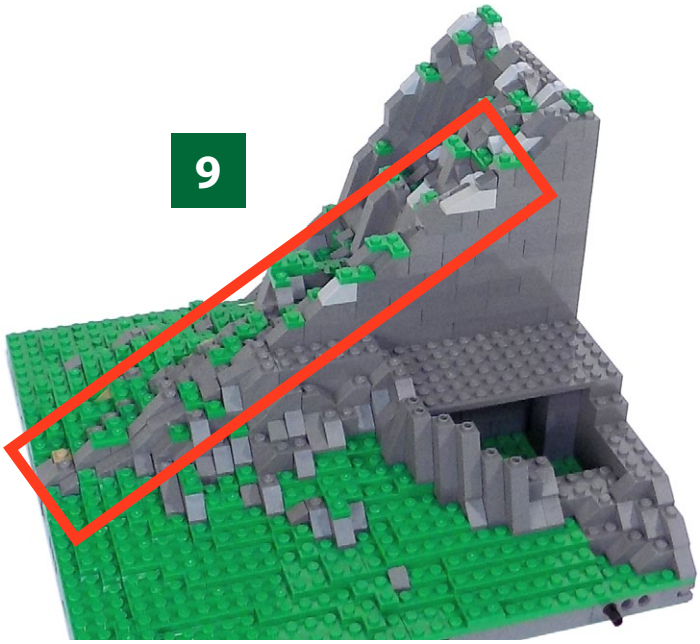
In the end, including the stops to take pictures, the construction process took me about 5 hours. It's true that the stops to make the photos broke with the continuity of the construction, but the result is quite decent. There are areas that could have been better, such as the edge of the short side in its central zone, which is too continuous, or some cracks, which have consecutive vertical surfaces of more than 1 brick in height. Perhaps it could have been improved with 2 x 1 x 2 slopes, but considering that I only used the pieces I had at that time, I can say that I managed to meet the challenge.

**Listed below as a reference are the pieces used to build this mountain section, not including the base of the module:**

| | | |
|---|---|---|
| 3005 | 8 | Brick, 1 x 1, Dark Bluish Gray |
| 3004 | 4 | Brick, 1 x 2, Dark Bluish Gray |
| 3003 | 6 | Brick, 2 x 2 corner, Dark Bluish Gray |
| 3003 | 16 | Brick, 2 x 2, Dark Bluish Gray |
| 3002 | 49 | Brick, 2 x 3, Dark Bluish Gray |
| 3001 | 18 | Brick, 2 x 4, Dark Bluish Gray |
| 3001 | 5 | Brick, 2 x 4, Green |
| 2456 | 36 | Brick, 2 x 6, Dark Bluish Gray |
| 3024 | 20 | Plate, 1 x 1, Green |
| 3023 | 4 | Plate, 1 x 2, Green |
| 2420 | 20 | Plate, 2 x 2 corner, Green |
| 3022 | 15 | Plate, 2 x 2, Green |
| 3021 | 4 | Plate, 2 x 3, Dark Bluish Gray |
| 3020 | 15 | Plate, 2 x 4, Green |
| 3030 | 1 | Plate, 4 x 10, Dark Bluish Gray |
| 3031 | 10 | Plate, 4 x 4, Green |
| 3958 | 6 | Plate, 6 x 6, Green |
| 54200 | 20 | Slope 30, 1 x 1 x 2/3, Dark Bluish Gray |
| 54200 | 5 | Slope 30, 1 x 1 x 2/3, Light Bluish Gray |
| 4286 | 8 | Slope 33, 3 x 1, Dark Bluish Gray |
| 3040 | 105 | Slope 45, 2 x 1, Dark Bluish Gray |
| 3040 | 5 | Slope 45, 2 x 1, Dark Tan |
| 3040 | 10 | Slope 45, 2 x 1, Light Bluish Gray |
| 4660 | 7 | Slope 75, 2 x 1 x 3, Dark Bluish Gray |

MILS
Modular Integrated Landscaping System

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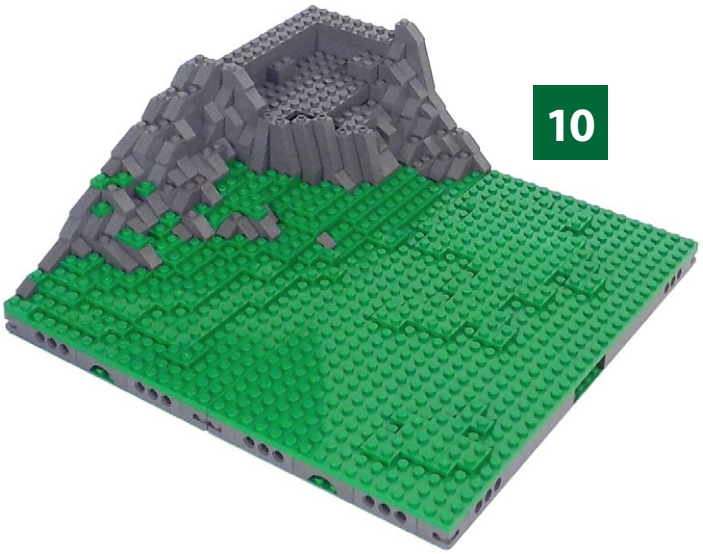
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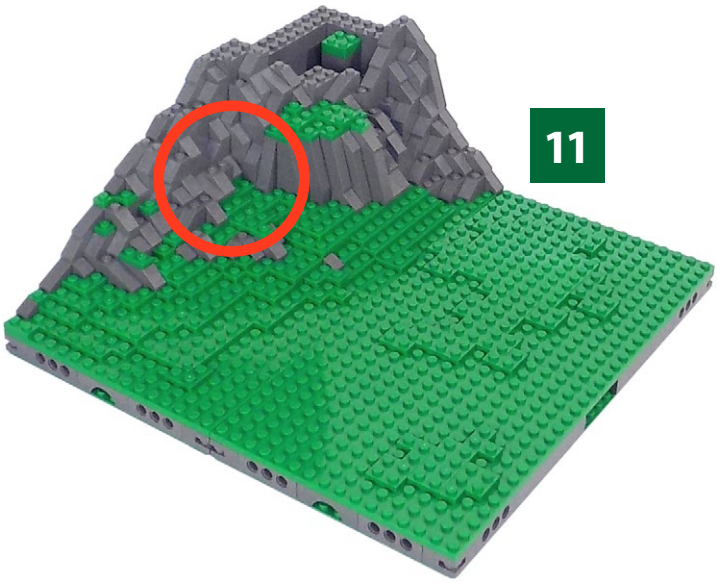
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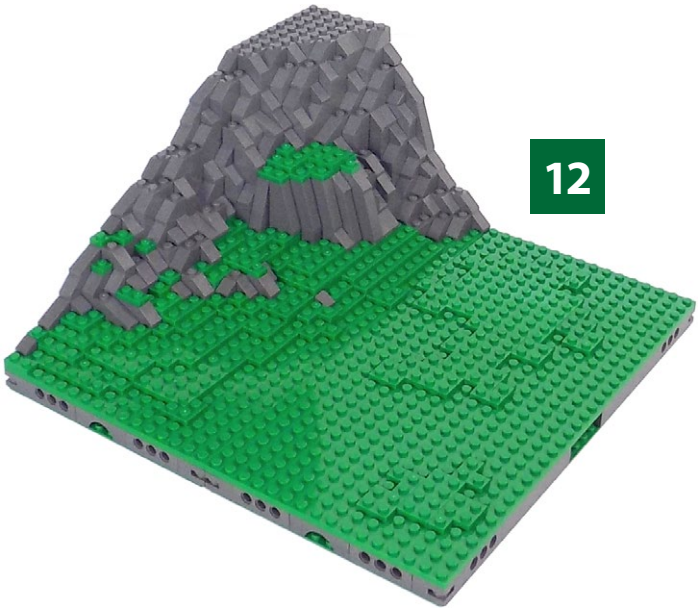
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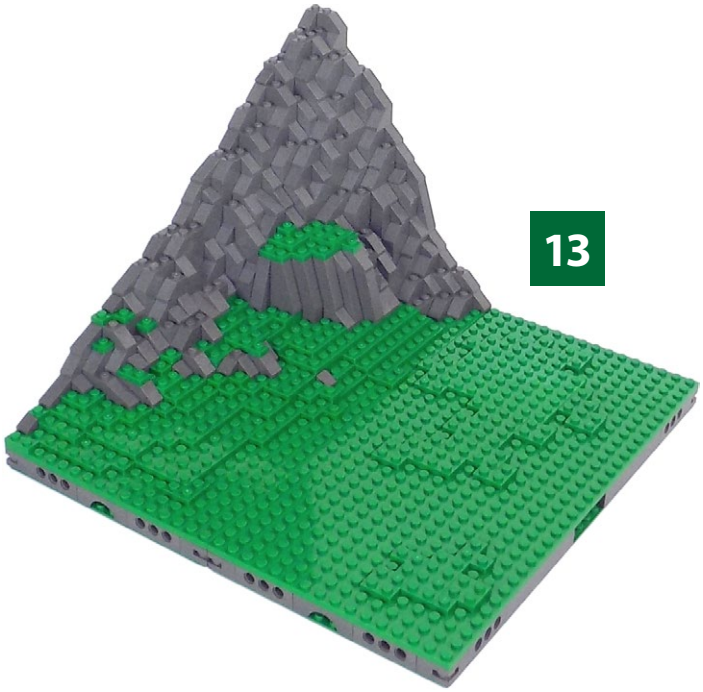
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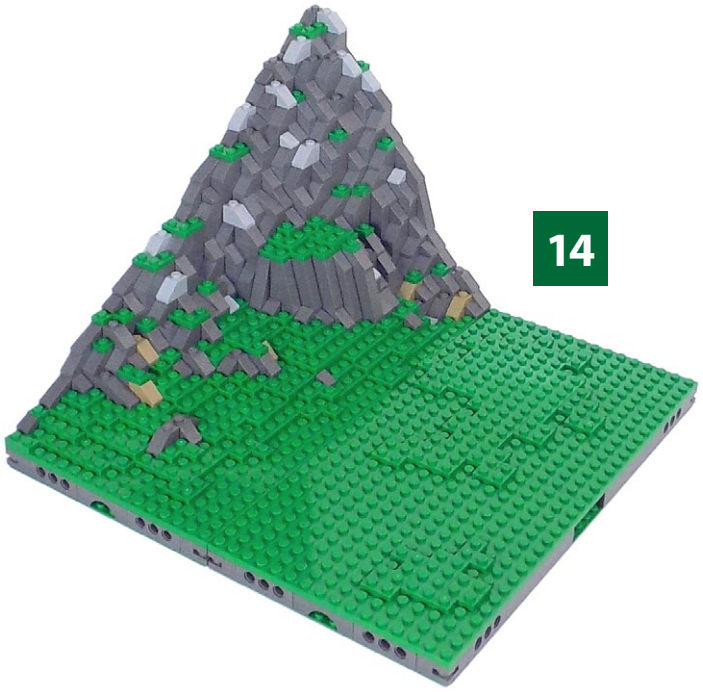
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