



## Design Challenge

**Extraordinaire:** The Werewolf

**Design Project:** A Hide-Out

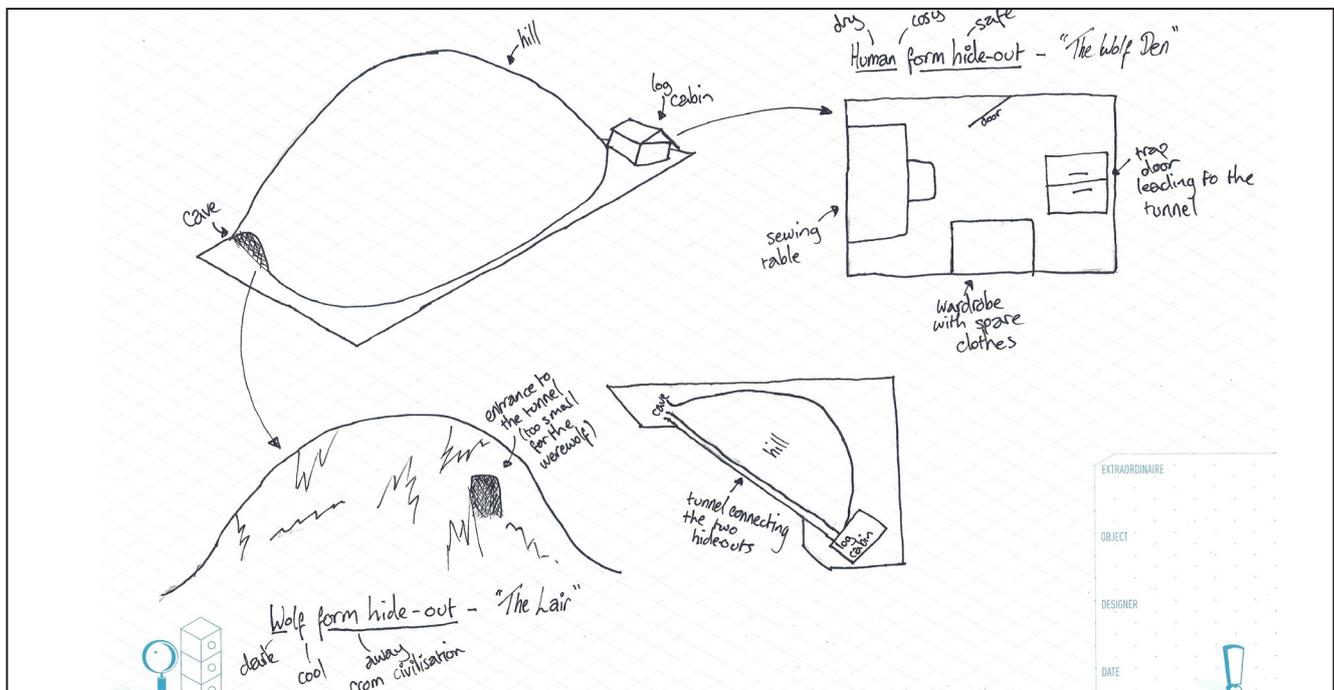
### About the Extraordinaire

The Werewolf has a dual personality: his were-form which runs freely through the forest, and his human form who wants to live a normal life. It is important to remember that both of these identities have different wants and needs, so designs should try to help both aspects of the Werewolf's life.

The Werewolf's human form enjoys drinking coffee with his friends and has a very particular hip sense of fashion. He loves his plaid shirts and tries to repair the ones he can as they get torn during his transformation. Most importantly, he is worried about what his friends will think if they discover his secret, so he does whatever he can to keep the truth from them.

The Werewolf's were-form runs freely through the forests with his wolf pack. He doesn't like the lights and sounds of the city, but roams under the glow of the full moon.

**Design Solution:** The Wolf-Den/The Lair



### Materials

- Cardboard
- Newspaper
- Paper
- PVA glue
- Super glue
- 0.1 inch dowel (I recommend square dowel for the flat surface but round works well too!)
- A craft knife
- Acrylic paints
- Masking tape
- Scissors
- Green card

## Procedure

1. The first step is to create a rectangular base out of cardboard which measures 16 x 27 inches.

*I recommend you mark out your log cabin to ensure you leave enough space for everything in your diorama. I used a piece of paper for this so I could adjust the position quickly if I wasn't happy with how it looked. The base measurements are roughly 4.5 x 3 inches.*

2. Mark out a tunnel, roughly an inch wide, running diagonally across your base about 24 inches from the center of your log cabin to where the entrance of your cave will be.

3. Once you mark out your tunnel, connect the outside of the tunnel to the edge of your base to create a wider platform for the cave and cabin to sit on.

4. You can now cut away the excess cardboard. Try to cut this out as one piece, as this will form the flat cutaway section of the hill which divides the two hide-outs..

5. Draw a rough curve on the excess cardboard, trying to create a gradual slope as this will connect directly to the base itself. Cut along the curve you create.

*Don't forget you can always cut away more cardboard, but adding on more is difficult.*

6. Now we need to create the walls of our tunnel. Get a piece of cardboard roughly the length of your tunnel and mark out a rectangle roughly an inch and half tall – the back wall of your tunnel. Then create a similar rectangle which is the width of your tunnel – the roof. Using masking tape attach the two long ends together so that they are perpendicular.

7. Attach your hill shape perpendicular to the roof of your tunnel using tape, then tape the entire structure to your base.

*If you are struggling to keep this structure upright you can use some regular tape to hold everything in place, but don't worry too much. Once you start forming your hill the structure should become more solid.*

8. To create the shape of the hill, take pieces of newspaper and crumple them into balls. Glue these to the back of the tunnel and onto your base with plenty of PVA.

*Don't worry too much about how this looks. Provided you stick the newspaper roughly the same heights as the curve, you should end up with a fairly even hill.*

9. Now it's time for some papier-mâché. Pour some PVA into a small bowl/cup and add a little bit of water; the ratio should be roughly 2 parts glue to 1 part water. Tear your paper into strips, coat them in the glue mixture and apply them over the top of your newspaper mound.

*Currently the goal is just to create the main shape of the hill to use as a reference for the rest of the diorama and to make sure the mound doesn't get in the way for the next parts of the build.*

10. While the PVA is drying, make the log cabin. Starting with the door, use the craft knife to cut pieces of dowel into 2 inch pieces. You want about 8-10 glued together to form a rectangle about an inch wide. Cut two extra pieces an inch wide to go on the top and bottom of your door.

*You can make a small cube to use as a door handle if you like!*

**11.** For the wall which surrounds the door, cut dowel pieces to roughly 1 and three quarter inches. This time you need about 14 for each side of the door. Glue these together, and glue to the door. The top of your wall and door should be level.

*If you are using square dowel, I recommend gluing the edges together rather than flat faces to get more height for each piece you cut out as well as the traditional log cabin texture.*

**12.** Finally cut two pieces of dowel 4 and a half inches long. These should glue directly onto the top of your door/wall to finish that side of your cabin.

**13.** For the other sides of your cabin, cut the dowel to 3 inches and 4 and a half inches. You need roughly 16 for each side of the cabin. Glue these together with super glue.

*Although my log cabin has one of the sides missing to show the interior, I still built all four walls and attached them together. This was to ensure that when I stuck the roof on it would sit at the right angle.*

**14.** The roof should over hang the cabin slightly – I cut my dowel to roughly 5 inches, using 16 pieces for the front of the roof, 12 for the back of the roof and 1 piece going across the top of the diagonal for the look. Glue these together with super glue, and then attach to the rest of the cabin.

*If you are using square dowel I recommend that you glue the flat faces together for the roof. This will give you a smooth roof surface as well as a small triangular gap in the center of your roof for the edge of the top piece to slot into.*

**15.** Now that the papier-mâché has dried, you can extend out the bottom of your base. Cut pieces of cardboard to the length of each edge of your base, and about an inch and a half wide. Attach them with tape.

*I also used papier-mâché to attach the base extension to make it more secure as well as to create a smoother finish. It also gives you a chance to add to parts of your landscape you want to improve the look of it.*

**16.** For the trees, I drew a basic pine tree shape onto a piece of green card and cut it out. I then used that tree as a template to cut out more trees of roughly the same size and shape. You need 2 tree shapes for each tree you want to make.

**17.** To assemble your trees, cut along the center of your first tree shape from the top to about half way down, and then from the bottom to roughly halfway up on your second. Slot the trees into each other to make small trees. Use PVA to hold these together.

**18.** Now you can paint and decorate your diorama! Use acrylic paints for the landscape, superglue to stick down the log cabin and PVA for the trees.