PAPERMAKING WITH FUNGI
Pikes Peak Mycological Society
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Papermaking with fungi is easy and fun! The basics of paper making are explained below.

To begin, you need a few basic things:
Mould and Deckle
Blender (one you don't mind if it burns out on you - they are plentiful at Thrift Stores)
Pulp
Water
Large tub (dish tubs work well for small scale operations)
Sponge
Rags
Glass or non porous surface to dry out paper

Mould and Deckle
At its most reduced form, a hand mould and deckle (in western style papermaking) is simply 2 separate frames of the same size. One happens to have a screen attached (the mould). The other frame stays loose (the deckle). When the deckle is laid on top of the mould, it forms the edge of a piece of paper.
from http://www.paperslurry.com/2014/08/01/make-mould/

I would make a mould and deckle using scrap wood or repurposed thrift store frames - depending on the size you need. For larger frames, I use a hard wood like Poplar, and just make two identical frames, and use metal screen which is wrap tightly around the mould and staple to the back. You can duct tape the front to delineate the area for your paper, as well.

Pulp
from Wikipedia: Pulp is a lignocellulosic fibrous material prepared by chemically or mechanically separating cellulose fibres from wood, fiber crops, waste paper, or rags. Many kinds of paper are made from wood with nothing else mixed into them. This includes newspaper, magazines and even toilet paper. Pulp is one of the most abundant raw materials worldwide.

But what they don't mention is FUNGI!!

The cell walls of fungi are made of a biological polymer called chitin, which is a similar to cellulose—the key ingredient in plant-based paper. *https://fungi.com/blogs/articles/making-mushroom-paper*

There are a lot of web sources out there about using fungi for paper pulp, but I follow these basic rules. Polypores work best, and I like them to be thick, but still pliable. Trial and error is also the best method for experimentation.

Here is a list of some species that work well:
Chlorocibaria aeruginescens
Daedaleopsis confragosa & Daedalea quercina
Fomitopsis cajanderi & Fomitopsis pinicola
Ganoderma applinatum & Ganoderma lucidum
Piptoporus betulinus
Pynoporus cinnabarinus
Polyporus squamosus
Stereum hirsutum
Trametes versicolor & Trametes hirsuta
Tapinella atrotomentosa

Preparation and Process

Make a thick stack of newspapers, over which place toweling or other absorbent materials. Canvas, or dish rags work well.

Making the Stock

After soaking, chop the mushrooms and grind with water in blender for a minute or two. Blend on different settings until you get a puree. Do not overload the blender, repeat blend instead. If you wish to add bits of soaked paper or rags strips, add these at this time.

Slurry

Dump the stock into the tray with plenty of water. The amount of stock to water is something with which you will wish to experiment. Stir until materials are well distributed.

With your hand, move from side to side under the surface of the water to more or less line up the fibers. Holding the 'deckle and mould' on each side, tilt it under the surface and quickly lift it up underneath the floating materials. Very quickly tilt it in each direction to get good coverage. If the screen is not well covered, dip it again until you are satisfied. Allow the paper to drip back into the tray until most of the water has run off.

Couching

After you make a sheet of paper, you need to couch (pronounced "cooch") it — or transfer it — to another surface. Place your hands so that thumbs are underneath,

fingers on top of each side of the mold and quickly flip paper onto the sheeting or toweling. Screen should now be on top of your paper. With sponge, sop up excess water. Carefully lift the screen from your paper. If it has become too dry, the paper will tear or the screen will stick to it. If this happens, sponge on more water through the screen until you can get it to release. The thinner the paper, the more delicate this step becomes.

Drying
Continue to dry by replacing newspapers and covering cloths. Ironing gently over a cover cloth can speed up this process. When dry enough to be easily handled, hang to complete or, if you wish very flat paper, put it under weights, continuing to change underneath papers or cloths frequently. There are no real mistakes. You can throw back whatever you do not like at any stage. The stock can be kept indefinitely; just add water.

Alternately, once I couch the paper, I like to transfer the wet paper to a piece of glass to dry, but any non porous surface will work well. You can even dry it on wood.

Do not flush down sink or lavatory as the stock and water may clog drains.

Six steps to manipulating mushrooms into paper
1. Collect fresh or dried fungi. The woody polypores are the best... you do not have to add any other fibers or sizing.

2. Break up the fungi into small bits (for the very tough fungi, this may be done after soaking or with a saw or both).

3. Create a pulp from a handful of fungi bits and a cup of water in a blender. Check pulp for preferred consistency. Blend for more time if necessary.

4. Place several batches of pulp into some water in a dishpan; stir slurry.

5. Place a prepared mold and deckle under the slurry in an even motion. Lift up and give pulp on screen a level small shake. Drain briefly at corners. Lift off the deckle and in one side-to-side motion, press the wet pulp onto a dampened sheet that is mounded on a folded damp towel on top of folded newspapers. Pulp should remain as a sheet of wet paper. Add another damp cloth and repeat process.

6. Place wet sheets of cloth with attached paper in a plant press to squeeze out excess moisture. (You may iron briefly — always have a cover cloth.) Continue drying process by changing dry cloths in a plant press using newspaper to absorb water. When almost dry, peel off paper and place between clean dry cloths and dry newspapers. Press with heavy weight. Check daily and replace with dry cloths.

from https://www.namyco.org/paper_from_fungi_basics.php