

## Ancient Sunrise® Henna for Hair Chapter 7 Mixing and Testing Your Henna

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#### What Difference Does Your Hair Color Make?

Everybody has a different color of hair, different diet, and different environmental circumstances. Henna will be different on everyone. This essay shows henna and indigo mixes tested on churro sheep of different colors. Churro sheep have a natural color range similar to graying human hair, though their fleece is coarse and more resistant to dye than human. This is intended as an example of how henna and indigo stain a range of fleece similar to, but not the same as, the stains produced on human hair.

People have different hair colors and textures. Every person's hair reacts a bit differently to henna. Though Ancient Sunrise® hennas are very similar, you may find one suits you better than another. These are plants, growing in different soils, under different conditions. You'll have to try a few things to find out what you like best.



These samples are wool from sheep of color, with different proportions of gray hair.

From left to right, these sheep are

- 1) natural white
- 2) dark blonde that is about 50% gray,
- 3) medium brown that is about 20% gray
- 4) dark brown that is about 10% gray,
- 5) black that is about 10% gray
- 6) black that is about 80% gray

Henna and indigo stain the outer keratin sheath of your hair. They do not change the melanin color in the core of your hair. The color of your dyed hair will be a combination of the stain and your natural color. If you dye graying hair, the stain will be different on the pigmented and gray hair. These pictures show how different the results will be when the same mix is applied to different colors of hair.



Colored fleece dyed with henna.

Each fleece sample was dyed with the same henna at the same time. The blonde sheep became redheads. All of the gray hair became coppery. All of the dark sheep fleece stayed dark, but gained warm auburn tones.

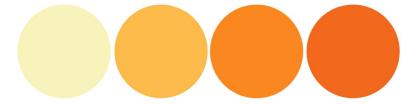


Colored fleeces dyed with half henna and half indigo

Here, each fleece was dyed with a mixture of half henna and half indigo. The blonde and gray fleece became medium brown. The brown fleeces had warm highlights.

#### Formulate Your Mix

Knowing what color your hair is, and what color you want, you can begin to create your formula. All of these colors will be translucent over the base color of your hair.



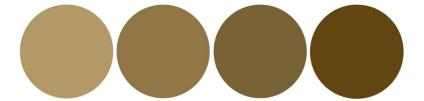
If you combine cassia and henna in your paste, you can create a range of blonde to light coppery red stains. The lawsone molecule easily dominates the cassia, so add henna cautiously. Bright copper red is about half henna and half cassia.



If you mix henna and indigo, you can create a range of chestnut to brunette tones. If you add a tiny bit of indigo to henna, the stain will be reddish chestnut. If you add a tiny bit of henna to indigo, you'll get ebony brunette. You can create a medium brunette with half henna and half indigo.



If you mix your brunette range with amla, you can get more of an ash tone to the brunette. There will be less of a red tone to the brunette color.



If you take a very small amount of a henna/indigo mix, and add it to cassia mixed with an athrocyanine juice for an acidic liquid, you can get ash brown tones. If you use more cassia, the color will be paler. If you use more henna and indigo, the color will be closer to light brown.

#### **Mix Your Paste**

How much should you mix? These are approximate amounts for the total amount of henna, cassia, indigo, or combination of these. If hair is tightly curled, use more to compensate for the actual length of the hair.

100g will dye short hair or cover one month's growth of roots.

200g will dye collar length straight hair.

300g will dye shoulder length straight hair.

500g will dye waist length hair.



Put your henna powder in a bowl and add either powdered fruit acid and liquid, or your acidic liquid. There is no need to heat or cool the liquid.



If you are using an acidic powder, stir it into the powder before adding liquid.<sup>1</sup>

If you want to use herb tea to mix your henna, add an acidic powder, citric acid, amla, copperberry, or nightfall rose to the tea. No herb tea significantly changes the color of henna.

An aluminum or stainless steel metal spoon is not going to hurt the henna.

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Add the liquid gradually, stirring it in. One henna powder may take up more liquid than another, so it's not possible to say exactly how much you'll need. Add liquid and stir until the paste is thick and lumpy like mashed potatoes. Don't add too much liquid; there is no good way to thicken it up other than to add more henna powder.<sup>2</sup>



Stir in fresh or bottled juice just as you would stir up a mixture with a powdered acid. When you can't see lumps of dry powder in the mix, cover it with plastic wrap and let it rest until you have dye release.



<sup>&</sup>lt;sup>2</sup> If your paste is too thin, do NOT simmer it until it thickens. Henna is not gravy.

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## Dye release: When Will the Henna Paste be Ready?

Fortunately, henna is very forgiving, and it's nearly impossible to do something so wrong that you can't fix later. The following is a very precise description of henna dye release, because it's important to know what the science is before you relax and bend the rules.

Lawsone is the dominant dye molecule produced by henna; there is a precursor and an intermediate form of this molecule. Only the intermediate form readily stains hair.

If you hold henna leaves in your hand, your hand will not be stained. You have to break down the henna leaves in one way or another to release the dye molecule, lawsone.<sup>3</sup> First, the henna leaves have to be crushed. Ancient Sunrise® makes sure their suppliers crush and sift henna leaves to a high standard, higher than other henna hair dye suppliers. After the henna leaves are crushed and sifted, the precursor lawsone molecule is more available. This powder has to be mixed with a liquid to change the precursor form of lawsone tothe intermediate aglycone lawsone molecule. If the mix is acidic, the hydrogens will stay attached to the corners of the aglycone and will be ready to bind to the keratin in your hair.<sup>4</sup> That's the optimal time to put henna into your hair. If lawsones aren't in contact with keratin during this optimal time, they'll bind with the free oxygen in the paste or in the air, and stain hair weakly or not at all.

An HPLC test of powdered henna leaves generally shows 0.5% to 3% lawsone, a red-orange napthaquinone molecule<sup>5</sup> which readily, harmlessly, binds with and stains keratin. This staining action is facilitated when the powdered henna leaf material is mixed with a mildly acidic medium; a pH 5.5 paste mix is ideal. At this mildly acidic pH, the lawsone molecule can be released from it's position on the tannin and migrate from henna paste to stain keratin. A Michael Addition facilitates a non-fading stable bond of the lawsone molecule with keratin. This red-orange stain can gradually oxidize to a brownish color when bound with keratin. In alkaline conditions, the stain can oxidize to black or greenish black.

<sup>&</sup>lt;sup>3</sup> There are some folkloric traditions comparing henna to a woman, in that both become more beautiful after they've been through hardship.

<sup>&</sup>lt;sup>4</sup> Compare this to tea stains on a white tablecloth. A dry tea bag on a tablecloth won't leave a stain. A wet teabag will stain a tablecloth: the molecules migrated from the teabag through the liquid into the tablecloth.

<sup>&</sup>lt;sup>5</sup> HPLC laboratory results, Alkemist Laboratories for TapDancing Lizard LLC, 2008 - 2016

<sup>&</sup>lt;sup>6</sup> Amro, I. H., James, K. C, and Turner, T. D.; 1993. "A Quantitative Study of Dyeing with Lawsone," *Journal of the Society of Cosmetic Chemistry*, **45**, 159 - 165

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OR
OR
OH
OH
OH
OR
$$_2$$

R=glc; R1 and R2 = H
R1 = glc; R= R2 = H
R2 = glc; R = R1 = H

OH
OH
OH

The sequence of henna dye release and binding is as follows:<sup>7</sup>

Lawsone is produced by hennocide precursors in the henna leaf.

The precursor is converted into the intermediate aglycone by hydrolysis in mildly acidic conditions. The aglycone intermediates will bind to keratin. Neither the precursor nor the final lawsone will bind as effectively to keratin as the aglycone intermediate. In the mildly acidic henna paste at room temperature, the aglycone will become available after about an 8 hour soak, and remain at maximum in the paste for 12 – 24 hour hours, after which the percentage of the bindable aglycone form of the lawsone molecule will gradually diminish. This is termed 'demise' of the henna paste. At this point the henna paste produces diminishing stains. This transformation is gradual at room temperature. It proceeds more quickly in warm conditions and slows under cold conditions. Eventually all of the unstable aglycones will transform to the stable non-bindable form of keratin. This usually happens in about one week at room temperature; in henna work, this is referred to as demise. This demised henna paste stains keratin a weak orange color which will not darken because it can no longer bind through Michael Addition.

The acidic paste maintains the hydrogen atoms on the corners of the aglycone, the intermediate form of the lawsone molecule. In acidic mixes of henna, the intermediate form of lawsone will migrate into the keratin in hair or skin, and darken as it binds permanently with the keratin by a Michael Addition. If the henna powder is mixed only with water, the hydrogen atoms are not as well conserved. Henna mixed with water is more likely to fade from air because unbound

<sup>&</sup>lt;sup>7</sup> Gallo, F., Multari, G., Palazzino, G., Pagliuca, G., Zadeh, S. M. M., Biapa, P. C. N., Nicoletti, M.; 2014. "Henna through the Centuries: A quick HPTLC analysis proposal to check identity." *Revista Brasiliera de Farma Cognisia*. **24**, 2

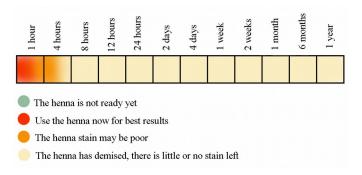
<sup>&</sup>lt;sup>8</sup> Attempting to improve henna powder by adding lawsone powder will not improve the henna stain. Only the intermediate aglycone can effectively stain the hair.

<sup>&</sup>lt;sup>9</sup> Ruchi Badoni Semwala, Deepak Kumar Semwala, Sandra Combrinck, Catherine Cartwright-Jones, Alvaro Viljoen "Lawsonia inermis L. (henna): Ethnobotanical, phytochemical and pharmacological aspects." *Journal of Ethnopharmacology*, June 2014

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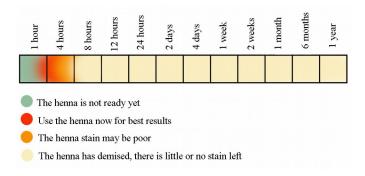
lawsone will gradually wash out of hair. Henna mixed with a mildly acidic mix will leave a stain in hair that is not only permanent, but will gradually darken, and continue to darken for years.

Adding heat to the process of dye release makes release go faster. Cooling the process makes it go slower. I prefer the slower, cooler dye release sequences because you get better long term results. The cooler mixes are more forgiving, give more natural-looking results, and you have a longer window of opportunity for using the paste. Here is a series of time tables for mixing and using. All of these times are approximate. The enzymes in fresh fruit juice tend to make the process move faster. Purified citric or acetic acid makes the process move slower.



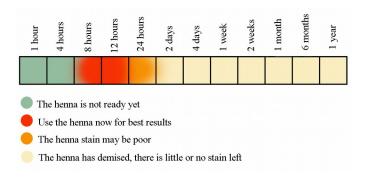
Henna and boiling liquid

If you add near boiling liquid to henna powder, the paste will be ready immediately. Do not delay using a hot paste, because the lawsones oxidize and demise very quickly. Hot paste results tend to look brassy and fade over time. A hot paste mix is a good stop gap if you have a henna emergency, throw out any leftovers.



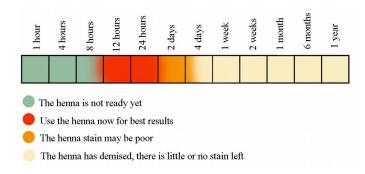
Henna in a hot place, 100F to 140F or 37 to 60 C

If you're in a hurry and don't want your henna to go brassy, put your henna mix in the car, in the sun, with the windows rolled up, or some other place that's 100F to 140F, 37 to 60 C. Check your paste in one hour for dye release. Do not put your henna paste in the oven or microwave; ovens heat the paste unevenly.



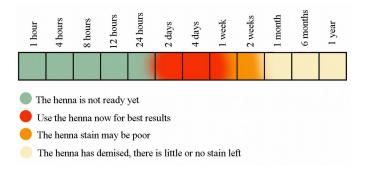
Henna on a warm day, 80F or 26 C

If you have a warm room or on a warm day, 80F or 26 C, mix your henna in the morning and it will be ready in the afternoon or evening. If you can't use it twelve hours after you mixed it, cover the paste and put it in your refrigerator or freezer, to save it for later.



Henna on a cool day, 65F or 18C

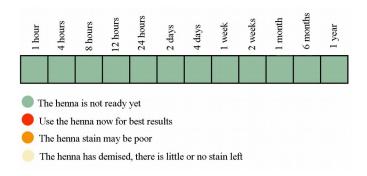
If it is a temperate, mild day or in a cool indoor setting, 65F or 18C, mix your henna the night or day before you intend to use it. If you haven't had a chance to use your henna by the second day, put it in the refrigerator or freezer and save it for later.



Henna in a cold place, 40F or 4 C

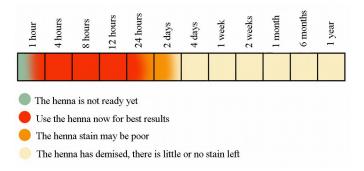
If you aren't sure when you can use your henna, mix it and put it in the refrigerator at 40F or 4 C. It will be ready in about two days, or you can leave it there for a week, and your paste will be ready and waiting for you.

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Henna in the freezer, 25F or -4C

If you mix henna and immediately put it in the freezer, it will remain on the verge of dye release indefinitely. When you are ready to use your frozen henna paste, just thaw it and use it or keep it in the refrigerator. Frozen and thawed henna kept in the refrigerator will be ready to use for several days. If you are mixing henna for a salon or customers, I recommend that you mix large amounts of henna paste when you have some spare time, then freeze it to be thawed when you need it. Thawing small packets of henna as needed eliminates wasted henna and wasted time. Re-frozen and re-thawed henna has reduced dye content.



Henna in the freezer, mixed and allowed to release dye prior to freezing, then thawed

If you allow your henna to release dye before you freeze your henna paste, your henna will be ready to use as soon as it thaws. Freeze it in small packets, ziplock bags, carrot bags, or ice cube trays. If you freeze your henna in these small packets, you can quickly touch up gray if you don't have time to henna all your hair. Many people report that frozen henna gives an especially robust color, probably because the freeze-thaw process assists the breakdown of cellulose and henna leaf cells.<sup>10</sup> You can either freeze the paste without dye release, or you can do dye release, then freeze. Mix a kilo of henna at a time in a large bowl. It's cumbersome to mix more than one kilo at a time. If you anticipate using five kilos of henna over many months or clients, use several bowls. When you have a large amount henna paste mixed to your favorite consistency, spoon it into a small food chopper and whirl smooth.

<sup>&</sup>lt;sup>10</sup> In gardens, henna leaves become limp and dead if temperatures fall below freezing.

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### **Need Your Henna in a Hurry?**

If you don't have a warm place to dye release your henna, and you need it soon, try one of these to gently warm your henna:

- Cover your bowl of mixed henna with plastic wrap. Wrap that bowl of henna in a towel, and place a heating pad or electric blanket over or around it. Check your henna every 20 minutes to see if there appears to be dye release.
- Cover your bowl of mixed henna with plastic wrap. Put the bowl of henna in your car, parked in the sunshine. Roll up the windows. Check your henna for dye release every 20 minutes on a cool day, and every 10 minutes on a hot, sunny day. Parked cars can get very hot very quickly!
- Don't try to heat your henna in a double boiler. That's a big mess.
- Don't try to heat your henna in the oven; the heating will be uneven. Also, someone may come along and decide to preheat the oven for dinner without checking what's inside.

If you didn't mix up enough henna and find that you need some emergency henna to finish the job, heat up some water and lemon juice and mix a little more henna with a hot mix, and use it immediately. It will nearly blend with the rest of your henna, and won't do any harm.

#### What Does Henna Dye Release Look Like?

If you think your henna paste is ready, and you've made a reasonable guess from those time tables, the paste is probably ready. Keep your henna or cassia paste covered while it rests, so it won't get dry and crusty. The crust is difficult to stir back in.



Henna may be slightly browner when it has released dye, but this is not always the case

The surface of your henna may be slightly browned when there has been dye release. Is the henna below the surface a different color from the top? Dig into the henna with a spoon and see if the middle of the henna is a different green from the part that's been in contact with the air. <sup>11</sup> If the surface is darkened, lawsone molecules have been released and have oxidized where they were in contact with air. Sometimes there will be little pools or drops of brown liquid oxidized lawsone. Cassia doesn't turn brown like henna, but the dye release times are similar. Not all henna has a visible color change at dye release; if you don't see a color change and you think the henna has set long enough, it has probably released dye. <sup>12</sup>

<sup>&</sup>lt;sup>11</sup> Thin plastic wrap doesn't completely prevent air from reaching the surface of the henna. You may see a brown liquid in little puddles or in the folds of the plastic. That is lawsone and tannins, oxidized and released from the henna.

<sup>&</sup>lt;sup>12</sup> To view the complete application processes for cassia, see chapter 8, Examples 1 and 2. To view the complete application process for henna, see chapter 8, Example 3.

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Stir the paste; it will become smooth and creamy. The texture should be about like toothpaste or pancake batter. Adjust the texture of the paste with more acidic liquid if it seems too thick. The paste should slowly flow off the spoon. The paste is now ready to apply to hair, unless you're mixing in indigo.



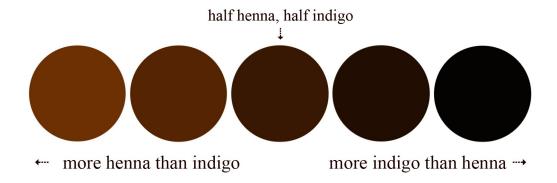
If you want to save time and money, or if you are a stylist, mix a lot of henna or cassia at once, spoon the extra henna in bags or ice cube trays and freeze it. Then, you'll have henna ready any time you need it. Frozen henna or cassia paste will keep for months in the coldest part of your freezer. If you are a stylist, and have a freezer full of henna and cassia cubes, you'll be ready for any client within minutes! Just thaw, mix, and apply.



## Mix Henna and Indigo for Brunette Colors

First, mix your henna or henna-cassia mix the day before you want to dye your hair so the dye is released.<sup>13</sup> If you freeze leftover henna in little packages, thaw some out. You can measure the proportions out in spoons of finished paste or by powder. Precision isn't important, so "close enough" is generally good enough.

You can always make your henna-indigo stain a darker brunette by adding more indigo in the next application, but you can't make your hair redder by re-dyeing with more henna as easily. When you're beginning, try for a lighter color that is likely to darken naturally. Don't expect to easily lighten a color that is too dark. Do not try to bleach hair that has been dyed with an indigo mix unless you test first. The results can be quite peculiar.



Five proportions of henna and indigo:

- 90% henna and 10% indigo = cool auburn
- 75% henna and 25% indigo = brownish auburn
- 50% henna and 50% indigo = medium brunette
- 75% indigo and 25% henna = dark brunette
- 10% henna and 90% indigo = nearly black

When you have your hair clean, combed, and ready to dye, mix your Ancient Sunrise® indigo powder. The indoxyl molecule is unstable; use the indigo paste quickly for best results. If your henna-indigo mix sits out for too long, the paste will stain your hair a more reddish color than you expect.

When your henna paste is ready, mix your indigo.

<sup>&</sup>lt;sup>13</sup> Mix henna according to instructions chapter 7, "Mix Your Paste"

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Add distilled or filtered water gradually to Ancient Sunrise® indigo powder stirring after every addition. Do not add an acidic liquid!



Ancient Sunrise® indigo mixed with water

Stir until there are no more dry lumps in the indigo paste. It takes some determination to get all the indigo powder wet.



Add previously mixed and dye released Ancient Sunrise® henna, or henna and cassia, to the indigo paste



Stir the henna and indigo pastes together

Stir until the two pastes appear to have completely merged, then keep stirring. If the two pastes are not completely mixed, the resulting color will be splotchy.



Henna and indigo mixed completely, ready to use.<sup>14</sup>

The dye molecules in indigo will change from the indoxyl state to the blue indigo state after about twenty minutes of exposure to air and acidic henna, and the longer the paste sits, the less effective it will be as a brunette hair dye. If you let your henna and indigo mix sit out too long, the henna red will prevail over the indigo tones. Keep your henna in one bowl and in a second bowl mix a small amount of indigo into henna and use that quickly. If you mix up the whole batch together at once you'll lose some of the indoxyls before you get all of the mix applied, and the results may be redder than you wished. Mix as much henna and indigo together as you can use in about twenty minutes. If you leave a henna-indigo mix in your hair overnight, you may find that more lawsones have migrated into your hair, and fewer indoxyls, because the indoxyls were lost to air and acidity, while the lawsones kept going strong.

Take care to not mix too much liquid into the paste. There is no way to make runny paste thicker other than adding more henna or indigo powder. Do not try to thicken paste by adding cornstarch. Cornstarch will hinder the stain. Do not try to thicken paste by warming it on the stove. That will ruin the paste.

Ancient Sunrise® indigo powder, henna-indigo paste, and indigo paste cannot be saved in the freezer. Freezing will ruin indigo powder and paste. Keep extra indigo powder at room temperature. If you feel you must save leftover henna-indigo paste to be thrifty, add more indigo powder when you thaw it.

<sup>&</sup>lt;sup>14</sup> To see the complete brunette application process, see Chapter 8, How to Begin

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# Mix Ancient Sunrise® Indigo Paste to Dye Hair Black with Ancient Sunrise® Henna, then Indigo

This will be applied to hair that has been dyed with henna within the previous 48 hours to produce black. Mix the henna paste and let it release dye overnight.<sup>15</sup>



Add some CMC powder to give your indigo powder a creamier, manageable texture.

Mix the CMC powder with the indigo powder dry, and stir them together completely. If you do not have CMC powder, you can use dry instant vanilla pudding. This makes the indigo paste smell better; some people find the indigo scent unpleasant. Some people add a little salt to indigo for better stain results.



Add water to the indigo paste gradually, and stir until there are no more dry lumps

This paste will be applied to hair that has been hennaed and shampooed. 16

<sup>&</sup>lt;sup>15</sup> Mix henna paste according to instructions in Chapter 7, Mix your Paste.

<sup>&</sup>lt;sup>16</sup> To view this complete two-step black process, see chapter 8, Example 5.

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### Test Ancient Sunrise® Paste on your Hair

Whether you are a stylist or doing your own hair, it's best to do a test first to get some idea of what the results are going to be. No two people have hair of exactly the same structure or the same hair history.



Harvest hair from your hairbrush

Begin by harvesting hair from your hairbrush or from wherever your spare hair tends to accumulate. Shampoo the collected hair. Conditioners and hairspray left on hair will give an inaccurate test.

If you can harvest two clumps of hair, you can see a before and after test. If you have more than two clumps, you can try some different mixes and see which one you like best. Wash and dry the harvested hair to remove hair care products.

Some people have hair that takes dye easily. Some people have very dye-resistant hair, particularly gray hair. Gray hair grows faster than pigmented hair. Gray hair has harder keratin than pigmented hair, and often resists dye.

Some people live in areas with very hard water which may cause an unpleasant color shift. If you live in an area where water has a high mineral content, your hair may be coated with those minerals, just as is the inside of your teapot. This may cause cassia and henna to have unusually dark, even greenish tones, because of the mineral reaction with the quinione dye molecules. This can be corrected by treating your hair with Ancient Sunrise® Rainwash. The most disagreeable color shifts seem to come from areas that have a history of mining metal or petroleum deposits from the ground which resulted in groundwater seepage.

Some people have had different chemical processes in their hair. Chemical relaxers don't seem to interfere with henna and indigo, but it wouldn't hurt to test first just to be sure. Bleaching hair hardens the keratin so there will be less dye henna or cassia uptake, and the color may be brassy or harsh.

Some have had environmental stressors that have affected their hair. Swimming in chlorinated water or sea water doesn't seem to spoil the henna color, but both can damage a person's hair. Damaged hair has a greater henna uptake than undamaged hair.

Henna, cassia, and indigo stain the keratin in your hair, but do not change the melanin in the core of your hair. The stain is translucent, so the end color will be a combination of your natural color and the color of the plant dyes.

All of these will affect the outcome of your dye, so the only way to know what you're going to get is to test first.



Gather your harvested hair and mix your Ancient Sunrise® henna



Mix the paste the way you think is going to work best for you. Spread some on a sheet of plastic wrap. Use plenty of paste and extra time to test; that will compensate for plastic wrap not being as warm and alive as your head.



Put a clump of harvested hair on the paste. Put more paste onto the harvested hair. Push the paste into the hair, and smear it around so every hair is very thickly coated, top, bottom, and all around.



Fold up the plastic wrap, paste, and hair. Let that rest overnight. This long duration will saturate your hair to about the same color as dyeing your hair a few times. After about 24 hours, shampoo and wash the paste out of the hair. Let the hair sample dry and rest for three days.

Use exactly this same process to test mixtures of Ancient Sunrise® henna and indigo, henna and cassia, or henna, indigo, and cassia.



This is hair harvested from my hairbrush. It is medium brown with considerable gray.



My hennaed hair just after rinsing

This is my harvested hair dyed with Ancient Sunrise® henna mixed with citric acid. This is the color just after rinsing. It is very coppery and bright. You can see that henna has stained the gray and the darker and lighter browns in my hair differently. Henna is a translucent stain and will look different on various colors of hair. Over the next few days, the lawsone molecules will bind to the keratin in my hair and darken, rather like a cut apple darkens when exposed to air. More acidic mixes darken more than less acidic mixes, or those with antioxidants.



Ancient Sunrise® henna stain on my hair darkens in four days



The henna stain on my hair after two weeks

Three days later, the color has mellowed to a deep red. The gray has become dark copper highlights. The pigmented hair is a very dark reddish chestnut color. At two weeks, my hennaed

hair has darkened to a rich auburn. In the sunshine, the color is dazzling red; indoors the color appears browner because indoor lighting is typically in the orange spectrum. I can expect my hair to stabilize at about this color. This color will not fade, and I will only need to do my roots as they grow in. At this point, I can decide whether I like this color or whether I should try something else, such as brunette or black.



My hair before and after henna

Here is the comparison of my undyed hair to the hennaed hair. The gray is stained a beautiful red. The texture is soft and lustrous.



My undyed hair and several different mixtures of Ancient Sunrise® cassia, henna and indigo

Above is a comparison of five harvestings of hair from my hairbrush. These show my undyed graying brunette hair dyed with cassia, henna, henna-indigo, and indigo over henna, showing

how these different mixes cover gray. The base tone of my graying brunette hair can be seen through all of these permanent but translucent dyes.



My graying brunette with Ancient Sunrise® cassia

This is my hair dyed with cassia only. The gray still shows, but it is less obvious than undyed hair. The texture is soft, and the hair looks healthier. Cassia would be a good choice for me if I wanted my hair to be in better condition and to not completely cover the gray.



My graying brunette with Ancient Sunrise® henna and indigo mixed together

This is my hair dyed with half henna and half indigo. This mix has returned my hair to a healthy, youthful, medium brunette color. The texture is glossy and strong, and the gray is completely covered. The henna-indigo mix would be a good choice for me if I wanted the benefits of henna without the red color.



My graying brunette dyed with Ancient Sunrise® henna, then dyed with indigo

This is my hair dyed first with Ancient Sunrise® henna, then immediately after, dyed with Ancient Sunrise® Zekhara indigo. This is a rich, glossy, 'black as a black cat' color. The texture isn't quite as soft as the hair with henna only, but it is healthy and strong. If I wanted perfectly



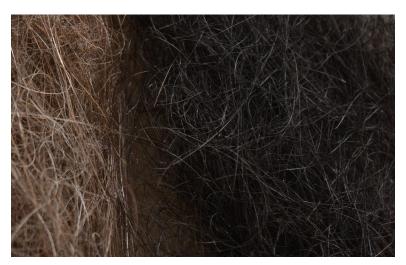
## Test the Two-step Henna and Indigo Process to Dye Hair Black

Mix Ancient Sunrise® henna paste, and let it sit overnight for dye release, <sup>17</sup> or retrieve and thaw some henna paste saved in your freezer. Dye the hair sample with henna. <sup>18</sup> Rinse out the henna.



Sample of freshly hennaed hair on indigo paste

Within 48 hours of dying the hair with henna, dye it again with Ancient Sunrise® indigo. Prepare the indigo. Saturate and wrap the hennaed hair sample in indigo paste. Rinse out the indigo after two hours and the hair will be beautifully black!



My undyed hair at left compared to the same hair dyed first with henna, then with indigo.

<sup>&</sup>lt;sup>17</sup> Mix henna according to instructions in Chapter 7, "Mix Your Paste"

<sup>&</sup>lt;sup>18</sup> Dye a sample of hair with henna according to instructions, chapter 7, Test the Ancient Sunrise® Paste on your Hair

<sup>&</sup>lt;sup>19</sup> Prepare the indigo according to instructions Chapter 7, page 18

<sup>&</sup>lt;sup>20</sup> Follow instructions to test hair with indigo, Chapter 7, page 21

<sup>&</sup>quot;Ancient Sunrise® Henna for Hair," Chapter 7, Mixing and Testing Your Henna Mix, Copyright © 2015, Catherine Cartwright-Jones PhD, TapDancing Lizard® LLC <a href="www.mehandi.com">www.mehandi.com</a> <a hr