

INTERNATIONAL MUSHROOM DYE-GEST

Volume 2, Issue 2 A Newsletter of the International Mushroom Dye Institute Spring / Summer 2002

UPCOMING MUSHROOM DYE WORKSHOPS, EVENTS, & EXHIBITIONS:



JULY

Hjördis Lundmark writes that Svampfärgarsällskapet, (the Mushroom Dye Group in Sweden) will celebrate its 10th year, and will have an exhibition in Ånge Naturum, in Borgsjö, Sweden July 14 - 28, hjordis.katarina@telia.com (See article "News from Sweden")

Carol Lee will be in California on July 27, 2002 at Dixon, California, just west of Sacramento, teaching two workshops. Just a one day affair, but should be fun.. Dixon, Calif. is 21 miles West of Sacramento. LAMBTOWN is a full day...10-10....with something for everyone. It will be held downtown Dixon, with Workshops and Classes being held at the Fiber Building, 140 North Jackson Street, Dixon, California. <http://www.lambtown.com/classes.html>

AUGUST

Carol Lee writes: "We are planning a "get to gather" for this upcoming August for the USA contingent of the IFFF. It will be strictly informal, just a gathering to hunt mushrooms, exchange ideas, dye pots will be going, etc. "This weekend is set up for August 10-11th, 2002 (See article in this issue "News from the USA" for more details).

Carol Lee will also be teaching one workshop in Fairbanks, Alaska, and spending two weeks hunting mushrooms up there. August 18-September 13 are the dates of the trip. She will be doing a workshop outside of Fairbanks on Chena Hot Springs Road. Aug. 31-Sept. 1, is the date set for this. Contact Carol Lee for more information, clee@union-tel.com

SEPTEMBER

Anna-Elise Torkelsen writes from Norway - "this year the Norwegian mushroom dyers group, named - *Forum for soppfargere*, celebrates its Ten Year Anniversary with an exhibition September 1st to October 25th, at Asker Museum, about 20 km west of Oslo, Norway." (See article "News from Norway") Anna-Elise Torkelsen and Anne-Ki Helm will also be teaching a Mushroom Dyeing workshop at Asker Museum, on September 9th, 11th, 15th, 2002. For further information, contact a.e.torkelsen@nhm.uio.no

Carol Lee hosts "THE GATHERING". This is a FREE weekend open to any and all fiber folks, held here in Encampment, Wyoming at The Academy of Spinsters. It always includes a few mushroom pots cooking. This weekend is held every year the last weekend of September, and mushrooms are still popping up here in the mountains. This year it will be held Sept. 28 & 29th. You bring your sleeping bag, food, fiber equipment, and we just have fun. If we fill the house, and it is a huge house.....10 bedrooms....we put up tents in the back yard. If you have things to sell, feel free to bring them along. Spin, Weave, Dye, Knit, Crochet, or just relax. But you will sure laugh and eat!!!! Carol will also be teaching a Mushroom Dyeing Workshop at "Back of the Watsatch" Wool Festival in Coalville, Utah, September 21-22, 2002. For more information, contact: clee@union-tel.com

Mary Scott will be the instructor at "A Mushroom Dye for Beginners Workshop the weekend of September 13th through the 15th, 2002, sponsored by the Outer Banks Fiber Group" in North Carolina, and each participant will leave the workshop with enough mushroom dyed yarn to complete a vest-sized project. For details, contact Inger Seitz at 252-255-1448, or IBSEITZ@juno.com. Mary may also be contacted: sheepman@gte.net. Mary will also be conducting two workshops involving mushroom dyeing at Holiday Lake 4-H Educational Center in Appomattox, Virginia. Each participant will go home with enough dyed yarn to complete a vest-sized project. The 4-H Center is an excellent facility which offers room, board (the food's great!), and instruction for one VERY reasonable price! The workshops are as follows: Bugs and Botanicals, Natural Dyeing - September 9-11, 2002 and Love Those Mushroom Dyes! - November 8-10, 2002 For additional information, contact Bryan Branch at 434-248-6749, or bbranch@vt.edu. You may also contact Mary Scott at 757-986-2010, or sheepman@gte.net.

OCTOBER

Susan Hopkins will be teaching a Mushroom Dyeing workshop October 9th - 13th at the North American Mycological Association (NAMA) National Conference at Diamond Lake, in southern Oregon, 85 miles northeast of Medford, Oregon and just north of Crater Lake National Park. <http://www.namyco.org>. She will also teach later at Oregon Mycological Society Fall Mushroom Show! For more information, please contact Maggie Rogers at rogersmm@aol.com

Anna-Elise Torkelsen and Anne-Ki Helm will be teaching a Mushroom Dyeing workshop at Asker Museum, about 20km west of Oslo, Norway, on October 18th - 20th, 2002.

News from the USA about IFFF (International Fungi & Fibre Federation) - by Carol Lee

We are planning a "get to gather" for this upcoming August for the USA contingent. It will be strictly informal, just a gathering to hunt mushrooms, exchange ideas, dyepots will be going, etc. Our home is very large, 10 bedrooms, with BLM and National Forest Lands almost in our back yard. We will happily host this first Mini Symposium. We will provide the place/beds.....asking for a donation of \$10. per head. Per day.....you will need to bring your food.....for potluck meals.....or we have restaurants within walking distance.....you bring your dyestuffs, I will have some mushrooms on hand also... hopefully we will find dyers in the mountains also....I have a large dye kitchen in the backyard that can handle at least 30 pots cooking, and I have the pots and stoves. We can sleep 30 folks as long as you don't mind sharing a room. Many rooms sleep 4, some can accommodate more if need be. We have 3 kitchens in the house, bathrooms, 5 living/sitting room areas, a spinning studio, a weaving studio, and lots of open space as well as areas to get away. RV's are welcome also.

This weekend is set up for August 10-11th, 2002. You are welcome to arrive a day or two beforehand, and leave a day or two afterwards. For those who must fly, Denver is your best bet. Laramie....85 miles away...has an airport, but the costs of flying into there are prohibitive. Denver is 200 miles. We are high altitude, 7,400' and will be mushroom hunting from that altitude up to 11,000'. The sun is hot, the shade is cool, and rain is an extreme rarity. But we have streams and boggy areas around them that grow masses of mushrooms.

Anyone interested, please let me know. We would like to hold a meeting where we can talk freely and comfortably about what we would like to see happen with the IFFF. Then when we go to Australia, our ideas will be on paper and ready to present. Also we would just like to get together in a friendly comfortable place and relax. The dyepots will be cooking as this is my regularly scheduled Mushroom Weekend. I do have cats.....strictly indoor cats.....two big guys, just so you know. Llamas in the backyard for those who would like to take a hike. Tents if we overflow the house, campgrounds,

<http://geocities.com/fungiandfibre>, <http://geocities.com/sheepshedstudio> <http://www.angelfire.com/wy/academy/>

July 2003 - The 11th International Fungus /Fibre Symposium in Australia -

Here is some information:

Postal address: IFFS 2003, c/o Greenskills PO Box 577 ,Denmark, Western Australia 6333

Email: grskillsdmk@greenskills.green.net.au>

Website: www.greenskills.green.net.au> and follow the links to the Symposium



EXPLORATION WITH THE DYEBALL – Part 2

© Loren Washburn (This is part 2 of Loren's article on *Pisolithus tinctorius* [the dyeball] Part 1 appeared in the IMDI Newsletter #2 (Fall/Winter2001))

Ink making project

At the time I started the walnut dye demonstrations, I was enrolled in a Silk Screen Special Studies class. I decided to attempt to make ink using the dye. Silk screen ink has the requirement of having particles small enough to go through the printing screen. Several weeks into my dye experiments with walnuts, I was able to expand and add several species of mushrooms. The Dyeball mushroom, *Pisolithus tinctorius*, held the most promise for a dark line ink with its intense concentration. So I was playing with mushroom inks after all.

I tried various thickening agents. The jelly mushrooms we used as painting medium in Miriam Rice's *Mushrooms for Pigment* class did not thicken the ink adequately for what I wanted. Other silk screen artists have thickened dye with sodium alginate and carrageen and various kinds of vegetable starch.

As well as the use of thickeners, I began to experiment with using the dye liquids to color silkscreen transparent base and extender. These are used with water based textile inks, and also make an effective carrier for the dye pigments. I think that the bases and extenders provide a certain amount of pH buffering for the paper. It really wouldn't do to make self-destructing artworks if I can work my way around it. I have more to investigate concerning the pH of the inks.

Archival considerations. A good ink should have a neutral pH. Some color responses are related to acidic or basic pH response. The environment tends toward acidic. Historic acid inks made from oak gall or walnut have been known to cause the paper to break down after a period of years. Perhaps the inks should tend toward base instead of acid. I am using the dyes for silk. Silk loves an acid dye and fibers can break down with too long exposure to, or too strong of a base.

When I do multi layered prints on paper I can print a background of lightly tinted color and extender for the background and that may protect it from additional layers of ink. Lots more to explore.

(*Note: I am not using mushroom inks for regular production printing at this time. It is still in the experimental stage.*)

Experiment procedures

I used boiled-down dye concentrates to make ink by thickening with sodium alginate HS LV (High solids, low viscosity). I had this on hand from other dye projects. This thickened but would not go through the screen and the color was weak.

Then I decided I would need to specifically concentrate the dye used as a source for the ink. Tried adding filtered dye to a waterbase silkscreen ink base. This prints through the screen but the color is pale.

Sodium alginate LV HS:	Won't screen
dye solution in silkscreen ink base:	Pale transparent but does screen
More concentrated solution, filtered, in ink base	Still pale, maybe useful as transparent layering.

Note: This ink would work as a transparent wash layer. Maybe built up in layers. Still not enough color for line printing when good printing consistency reached even using more concentrated dyestuff.

Comparative thickener testing.

½ cup dye broth

2 tsp. thickener

Mixed in ½ pint canning jars and heated and allowed to stand about an hour. May "blender-ize" it for further smoothness.

THICKENER	RESULT
Sodium alginate LV HS	Wouldn't screen
Sodium alginate HV LS	Prints OK
carrageen	Prints nice!
Potato starch	Never thickened at these proportions; maybe cook more?

I heated the samples in the microwave to facilitate dissolving and as some boiled over - had a good mess. The carrageen made the best of the inks to work with. The carrageen also boiled over more readily. (I opted not to scrape up and use the spill as it might add some sauce of unknown origin to the ink recipe!) An alternative notion for heating the ink and getting thickeners into the solution would be to put the brew in mason jars and set them in a larger container of water and heat them double boiler style.

I still wanted more intense color so I chose to continue experiment with dye bath of *Pisolithus tinctorius*. I have materials harvested so that strong liquid dye broth can be created without the need for steeping and fermenting that the walnut nut hull dyes require for full strength.. First experiments are very promising with carrageen. I create a special extra strong broth of *Pisolithus* and use already ongoing gooey portions in order to get darkest color. This stuff instantly clogs the filter, so I am straining using several mesh sieves. Also getting small rocks and grit out.

For final presentation printing I use this and carrageen. Unfortunately I did not heat it as thoroughly, and there is a slight but distasteful gritty feel to the ink while printing. Must see if that is removable by further cooking and or filtering! Nice ink! Not yet perfected though... (On some prints I applied the grit directly to the paper with an ink knife as shading. The results were fairly dramatic and velvety looking.)

Tested this ink on mushroom paper and on silk scarves. The carrageen stops the 'shroom ink from running as it is applied to the silk. Excellent! The mushroom paper is made from *Trametes versicolor*, AKA "Turkey Tail". This stuff makes great paper, good fiber and cohesiveness. Nice texture paper, easy to work with! Filter the dye liquid before thickening or adding to base or extender. (Note: It is so obvious I wonder it took me so long!)

Using the Inks

Since my production of these inks is limited in quantity I have not tried to make any large editions of prints. Instead I have been playing with some silkscreen monoprints. The process is technically printing, but results in one unique piece. So far these kind of experiments have been on paper, most often Rives BFK. Usually I start with a light color background, then build layers of the image working with darker and more intense colors.

I do this in two approaches.

The monoprint technique I learned from Jane Gregorius, Seriographer (Silk Screen Artist) and teacher at Cabrillo College, CA. is based on traditional silk screen inks. It involves painting the image on an open (without image) screen, elevated, not in contact with the surface to be printed. When the image is to one's satisfaction, one prints as in normal silk screen printing. One image is possible, sometimes a second ghost image can be created. One needs to work moderately fast to prevent drying and hardening of ink in the screen.

I have also applied the mushroom inks with the screen already in contact with the paper as I apply the pigment and ink. As a final step I squeegee a final coat of ink or extender through the screen so that it carries the pigment with it onto the paper. I started this with a rectangular opening blocked out in the screen.

After this 'background' print dries, I have printed from screens on which I have created selected images. At this point I may choose to use a solid dark ink, usually *Pisolithus tinctorius*, or I may choose to paint the image with strong pigment extractions, tinted medium or tinted extender with the screen not touching the paper. Then I bring it in contact where I want the image placed and squeegee extender through the screen, carrying the applied pigment with it. The results tend to be subtle shadings as opposed to bold images.

Further refinements:

- Work at refining ink texture
- Experiment with pH in the ink/dye
- Experiment with mordants for color adjustments
- Create a twist bag of silk screen fabric for force filtering dyestuffs maybe one "bag" per dye color.



(Note: *Pisolithus tinctorius* is now appearing in the current mycological literature under the name: *Pisolithus arhizus* - Ed.)

Mushroom Dyes at Umeå University

The first academic course on this topic has been performed in Sweden.

Around twenty students full of expectation had gathered for the first session. This first session was held during four days in a former vicarage in a small countryside village. The facilities were perfect including localities for laboratory work, exhibitions as well as a room for theory lessons. At our stay we had time to discuss ideas relating to the dye process, yarn qualities and lots of other topics.

The theoretical part included history of dyeing with mushrooms, fibre material science, identification of dye mushrooms, dye chromophore chemistry, the physical chemistry of colour formation, stability of fibre to heat and chemicals and light stability of dyes, the chemical process of dyeing – the effect of pH, mordant, temperature, time and concentrations.



The mordant process of the fibre material was used as an introduction to the laboratory part. The second laboratory part was dedicated to dyeing with mushrooms from different genus with the aim of showing the great diversity of colours that can be obtained. Each dye bath process was also well documented regarding the different process parameters.

When leaving the first session the students were instructed to prepare a project work for our next session. The examination also included the answering of some written questions.

At the reunion for the final session at the University of Umeå it was time for reporting the different projects. It was very entertaining and highly educating to listen to the project presentations. The projects covered almost all aspects you can imagine. Different dye mushroom species were investigated and many students were thinking of how to optimise the time and temperature for the specific mushroom in order to get a nice colour. One project covered wool material sciences, another discussed the pH-dependent colour formation of *Dermocybe* species on unmordanted and mordanted wool. Other projects covered papermaking, dye extraction with ethanol or with ammonia. One group were fascinated in the dyeing of cotton – a difficult subject. They got a nice pink result with *Cortinarius sanguineus*. They also raised the question if it was possible to somehow coat the cotton fibre with protein in order to provide the fibre with acceptor ions for dye molecules and also presented some initial tests. The dyeing with *Thelephora* species was the theme of another beautiful project work.

A lot of creativity was seen in these projects and in the following discussions. The primary aim of an academic project is the generation of fundamental research, but these projects also showed the further application of designed products. Our ambitious students not only produced coloured yarn in their projects but also had created coloured art products – a marvellous woven cushion dyed with *Phaeolus schweinitzii*, dyed silk scarves, knitted works and an adorable woven painting representing a chantarelle.

Mattias Andersson
Hjördis Lundmark

Mushroom Dye News from Sweden

Hjördis Lundmark writes that Svampfärgarsällskapet, (the Mushroom Dye Group in Sweden) will celebrate its 10th year, and will have an exhibition in Ånge Naturum, in Borgsjö, Sweden July 14 - 28, 2002. They will have an exhibition with the history of Mushroom Dyeing, a photo exhibit of International Dyeing Symposia, photos of "dyeing-mushrooms" taken by Hans Marklund and many products using different techniques. Svampfärgarsällskapet started 4 October 1992. Borgsjö Naturum is an exhibition hall and tourist information center in a village of Borgsjö, which is 100 kilometers from Sundsvall, Sweden. It is on the road E14 between Sundsvall - Östersund - Trondheim. hjordis.katarina@telia.com



Mushroom Dye News from Norway:

Anna-Elise Torkelson writes from Norway - "this year the Norwegian mushroom dyers group, named - *Forum for soppfargere*, celebrates its Ten Year Anniversary with an exhibition from September 1st to October 25th, showing what they have produced, knitted, woven, felted etc. On the 26th of October we'll gather at our annual meeting - which this year will be special since it marks the 10th anniversary!" - the venue for our exhibition is Asker Museum, about 20 km west of Oslo, Norway. For further information, contact a.e.torkelsen@nhm.uio.no

...and Mushroom Dyed scarves in Sweden



Grythyttan, SWEDEN

Carla Mueller wrote in November 2001:

"It's been a great season for *Dermocybe sanguinea* and next Monday I will be dyeing with our whole school, (in Persberg), 22 kids between 5 and 12 years old. I've moved two huge cauldrons out by the lake on the school grounds. We will be dyeing silk scarves tie-dyed in yellow with *Boletus edulus*, violet with *Hapalopilus nidulans*, red with *Dermocybe sanguinea*, blue with *Hydnellum suaveolens* and we've prepared by experimenting with color combinations mixing food colors to learn about over dyeing. I think we will manage 2 dye baths!"

...And here are the results of that mushroom dye workshop last Autumn, at Persberg School, Sweden about which Carla wrote in the IMDI Dye-Gest #2 (Fall/Winter, 2001)





Colour Congress 2002 - An adventure beyond imagination.

A mushroom dye teacher's account... by Andreyana von Waldenfels-Marks, Elk, CA

Two years ago, Sara Kadolph from the University of Iowa in Ames, and Karen Casselman from Nova Scotia, Canada, send out invitations to participate in Colour Congress 2002. "This will be a world wide event, I will be watched and judged by the most renowned natural dyers of the whole planet", I said to myself over and over. "You better do your very best, Andreyana!" So I prepared for months in advance.

I started by weaving 2 large tapestries, 56" x 75", to be well represented in the exhibition. It turned out to be the most beautiful and well curated exhibit I have been honored to participate in. Every piece was well placed with lots of space around it. From the most pristine silk clothing from Korea, intricately ikat dyed shawls out of Borneo, spirited African wraps, fine wood block printed cloth from India, silk sculptures from California. My pieces were in the best of company, framing an entrance on both sides.

During the rainy season, I sent myself and my dog into the woods to collect these little fruits of the forest... fungi for my students. Miriam Rice, my dear teacher and friend completed my collection so that I could present 12 mushroom dye pots to fill 16 pages of the promised and advertised class: A sample book of mushroom dyes. Immersing my psyche into the mushroom world again, I spread my samples, books and boxes full of mushroom dyed yarns all around the studio.) mordanting skeins of different wools, silks, linen, cotton and silk yardage for the upcoming class. Sending everything ahead, cleared my mind for the wisdom and experience I would impart as the content to the physical orchestra of bubbling dye pots.

The day of arrival on campus brought an added surprise. My room mate was a Navajo weaver, who was eager to learn about mushroom dyeing. She made me realize many things in her quiet way, including the fact that mushroom dyeing was perfect for her way of working, slowly, thoughtfully, honoring nature and her gifts to us. The university campus usually houses 40,000 students which insured a top of the line laboratories. Sara Kadolph, the main organizer supplied me with de-ionized water which helped create the most brilliant mushroom dye colors I have ever experienced in my 24 years of fungi dyeing. 14 students eagerly immersed themselves into the world of mushrooms images, characteristics, Latin names and dyed skeins. We started with a short philosophical reading in the morning, to set the tone just right and yoga to stretch our bent backs to close the daily session. Later accounts confirmed that the class was a full success in which every one took home a completed 16 page sample book as a clear reference to mushroom dyeing.

What an adventure. We dyed by day and dreamed about it by the night. Mine was just a small contribution to the myriads of speakers from 22 countries who imparted their wisdom and ancient knowledge. I learned that another word for water repellent (like the spores of *Pisolithus tinctorius*) is hydrophobic, that the yellow pigment in weld (which I grow in my garden) is luteolin. The Navajo people have used white clay for mordants since time immemorial and dig yellow and ochre clays dye from arid mountain crevices.

Karen Casselman enlightened us about mollusk dyes (shellfish purple) which was started by the Phoenicians and is still practiced in Mexico on the Oaxacan coast by milking *Purpura pansa* every 28 days and putting them back in their habitat to insure the survival of this nearly extinct mollusk. Did you know that indirubin in indigo is an inhibitor for cancer cells?, and that "Bogolan fini" is a fabric dye technique from Mali, West Africa as well as in Alabama USA today? To top all these amazing facts, I learned that woad is grown in France in such amounts that they produce 20 kilos (40 lbs) daily of extracted blue pigment. They are not satisfied with dyeing textiles, but branched out to add the pigment to car colours - making a woad blue car my newest dream. Harald Boehmer with his Dobag project in Turkey gave an inspiring slide show in the huge auditorium. Cheryl Kolander has developed a logwood plantation project in Santo Domingo in the Caribbean, The Norwegians are reviving the Viking way of making Kotje cakes from lichen that grow in sea water above the Arctic Circle, and many more fantastic projects were revealed to us. These days were revolutionary in their approach to undermining corporate business.

During the whole conference of 8 days, the underlying philosophy was to bring back natural dyes from indigenous peoples, to reintroduce those colours into modern life, to create products that are saleable on the world market, and to empower the people to do what is their cultural right in living with their families and in tune with nature, while making a fair living.

It became very clear that dyeing is a fundamental expression of human civilization.

(Andreyana Marks is an expert in fungi dyeing since 1988 teaching at national and international symposia; andreyana@mcn.org)



Mushroom Dyers at the Color Conference 2002:

.....(excerpts from a letter by IMDI member Mary Scott to Miriam C. Rice)

The workshops and most of the conference lectures were terrific! The organization of the whole thing left a lot to be desired, but the presenters, were wonderful. Janette's (Janette McKeown, from Scotland) class was very interesting, but a very small class. She taught a no-pot method of using the mushroom dyes to dye felted items. She also shared her method of making very fine, sheer felt scarves, which turned out amazingly well! We also dyed some silk scarves with mushroom concentrate. (Note - Many of you will remember the Janette's exquisite work from the exhibit at the 10th International Fungi/Fibre Symposium in Rovaniemi, Finland- Ed.)

Carol Lee gave a short, colorful demonstration at CC2002 using *Cortinarius sanguineus* and *C. semi-sanguineus*. Her husband had taken some very nice photos and enlarged them to embellish the display as she dyed some test skeins in two crock pots. (Note - Carol is an IMDI member and the representative from the US to the IFFF -Ed.)

The conference allowed us to meet and listen to all sorts of natural dye experts from all over the world, especially India (madder), and France (woad). We all spent lots of money on fabrics from around the globe, dyed with natural dyes. Now, the challenge is to see how much of this information we can use in our own studios! The global challenge, of course is to try to influence the manufacturing industry to produce more items using natural dyes and mordants while decreasing the use of harmful pollutants.

There is a major issue over the use of chrome in the mordanting process! I was shocked to hear totally opposing arguments on the dangers involved. Are we really so ill-informed, or is it that chemists really don't know the true effects to our environment? Some really well known instructors are putting the word out that chrome isn't harmful and that using 4 Tablespoons of Chrome to 4 gallons of water will have no effect! The other side is saying that that much Chrome in the drinking water of a small town will be deadly! I think this is an issue we need to get some really serious scientist to tell us about, SOON! I want to know from more than one scientist whether heating the Chrome changes it chemically enough to make it safe, as some are saying.

Another topic that needs to be scientifically researched is whether to use mordant baths more than once. And, if you do, as industry does, how much is taken up by the yarns in the first bath? How much do we add to the second without "over doing it"?

I've just this month had our water tested for all sorts of things. One of the things that came out of the conference was the importance of magnesium and calcium in the water we use for dyeing. It's not just pH that can change the chemical bond between the dye and the yarn. I wonder if we need to address these issues at our next symposium, too. What about proper disposal methods for our mordant and dye baths? What's really happening to this stuff when we take it to our local HAZ MAT collection points?

I was very impressed with Riikka Raisanen's (Finland) presentation, "Natural Dyes for Textiles - Anthraquinones from the Fungus *Dermocybe sanguinea* as an Example". This was her dissertation paper for her Phd. Hynninen from the University of Helsinki. Although she was scared to death at first, a crowd of about 30 got a very detailed and well-prepared lecture about how the mushroom colors actually bond with the fibers in yarns. Riikka is a young wife and mother who has worked very hard to complete her degree and will be teaching an integrated chemistry/environmental science/math/ and crafts program in Finland this fall. Her second lecture described the education program she has developed. The 7th graders will be using mushroom dyes as part of their curriculum! When they finish, their final project will be to create an item of clothing or artwork from what they have learned. (Note - Riikka Raisanen had a fascinating exhibit of this research at the 10th International Fungi/Fibre Symposium in Rovaniemi, Finland in August 2001 -Ed.)

I always learn more than I can possibly live long enough to use!
Mary Scott

Apropos the Controversy over Potassium dichromate (chrome) ...

We strongly suggest that the book, *Artist Beware, The Hazards of Working with all Art & Craft Materials*, by Michael McCann, Ph.D, C.I.H. (Lyons & Burford Publishers, NY, NY., Revised Edition, 1992,) be made available to individual dyers and groups working together. Chemists consulted agree that *Potassium dichromate* is a known carcinogen and should be avoided if at all possible. (See page 495 of *Artist Beware*) Heed this warning! All the dye colors desired can be achieved with different mushrooms using non-toxic mordants.. Why not? In the next IMDI Dye-Gest, we are hoping a few chemists will speak out for themselves.

Also check out the MSDS (Material Safety Data Sheet) on any chemical you are unsure about. A lot of valuable information can be found on the Web at www.msds.com