

NORTH ORANGE COUNTY GEM AND MINERAL SOCIETY, INC.



ALL AMERICAN CLUB
1985, 1986, 1988, 1989, 1990, 1992



A member of the
AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES
CALIFORNIA FEDERATION OF MINERALOGICAL SOCIETIES

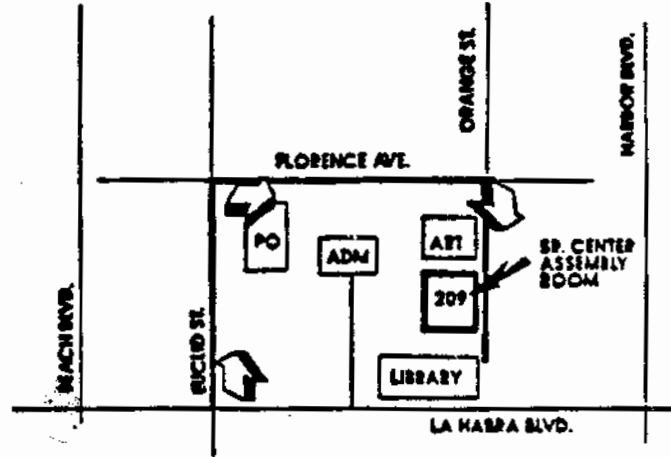
Meetings

Day and Location:

With the exception of July, August and December, meetings are held at 7:30 p.m. the second Tuesday of the month at the Sr. Center Assembly Room, 209 So. Orange, La Habra.

The Sr. Center Assembly Room is located on Orange St. behind the Library which is one block east of Euclid on La Habra Blvd.

For current meeting information, please call (310) 943-3623.

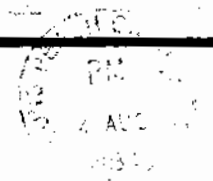


North Orange County Gem & Mineral Society, Inc.
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6-97



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DATED MATERIAL - DO NOT DELAY

Identifying True Amber (Succinite)

By Garry Platt, garry@gplatt.demon.co.uk

Since the screening of 'Jurassic Park' interest in the mineral amber has grown significantly. Unfortunately so has the quantity of fake amber coming on to the market. Some of these pieces have insect inclusions skillfully placed in the body of the matrix.

The British Natural History Museum recently discovered that a bee preserved in amber thought to be one of the oldest known examples of this particular species was in fact a fake and probably no more than 150 years old. Evidence of this nature, should alert all collectors to the possibility of being misled or simply cheated.

In some cases copal, which is tree resin which has not yet fully fossilized to amber and may be anything up 3-4 million years old is described as true amber. Debate still rages in the UK about certain Kenyan and South American deposits as to whether they should be called copal or amber.

There are a number of simple tests that can be carried out on amber to check its authenticity. I have listed here all the basic methods I have come across. More sophisticated and complex tests are possible but they require access to laboratory equipment. These more complex tests include Refraction Index, Precise Specific Gravity and Melting Point.

When examining a specimen you should try at least 3 of the following methods detailed here. If the item in question fails any one of the tests, it could well mean the piece is not true amber.

HARDNESS

Amber has a hardness on Mohs scale in the region of 2 - 3. Using appropriate scratch sticks it should be reasonably straightforward to test the sample under question.

HOT NEEDLE

Heat a needle point in a flame until glowing red and then push the point into the sample for testing. With copal the needle melts the material quicker than amber and emits a light fragrant odor. Amber when tested does not melt as quickly as the copal and emits sooty fumes.

SOLUBILITY

Copal will dissolve in acetone. This test can be done by dispensing the acetone from an eyedropper onto a clean surface of the test specimen. Place one drop on the surface of the test piece and allow to evaporate, then place a second drop on the same area. Copal will become tacky; amber will remain unaffected by contact with acetone.

UV LIGHT

Copal under a short-wave UV light shows hardly any color change. Amber fluoresces a pale shade of blue.

FRICTION

Rub the specimen vigorously on a soft cloth. True amber may emit a faint resinous fragrance but copal may actually begin to soften and the surface become sticky. Amber will also become heavily charged with static electricity and will easily pick up small pieces of loose paper.

TASTE

An antique trader who specialized in amber beads introduced this test to me. She explained that one of the most reliable tests she used was to taste the amber specimen after washing it in mild soapy water and then plain water. Whilst she could make no distinction between copal and amber, she could easily identify plastics and other common substitutes because of their unpleasant or chemical taste. Amber has hardly any taste at all. As a method for identification I have not seen this procedure recorded elsewhere. I can vouch for its effectiveness as a non-destructive method of differentiating between amber and certain other substances often misleadingly labeled amber.

FLOTATION (Specific Gravity)

Mix 23gms of standard table salt with 200ml of luke warm water. Stir until completely dissolved. Amber should float and some copals together with various plastics sink.

INCLUSIONS

Infrequently amber contains Flora or Fauna inclusions. Correctly identifying the trapped insect or plant should be an excellent indicator of a piece's authenticity. Most inclusions from ancient amber are of species that are now extinct or significantly changed.

POLARIZED LIGHT

Place the suspect piece of amber between two sheets of polarizing glass or plastic. (Kokin Filter Systems who sell lens accessories for cameras sell such products). Rotate one of the polarizing lenses slowly through 360 degrees. In the body of the amber a display of rainbow colors should cycle through the transparent parts of the material. This is due to interference patterns being induced in the polarized light because of the internal strains and stresses within the amber itself. My general experience with this method is that genuine amber and copal always show these color changes, whereas some acrylics, polymers and certain plastic do not. Amber that has been drilled and then later filled with a contemporary inclusion and resin also reveals its self via the clear disruption of the color display. Essentially, an amber piece which does not show interference patterns is unlikely to be true amber.

Anyone wishing to find out more about amber in general or these test methods specifically would do well to consult one of three books currently available on amber: *Life In Amber*, George O. Poinar, Jr., Stanford University Press; ISBN: 0-8047-2001-0.

Amber - The Golden Gem of the Ages, Patty C. Rice, The Kosciuszko Foundation, Inc.; ISBN: 0-917-00720-5

Amber - Window to the Past, David Grimaldi; Harry N. Abrams; ISBN: 0-8109-1966-4.

Now back to the bee I mentioned earlier. I am afraid that only the 8th and 9th tests would identify this particular fake. The item consisted of a block of true amber into which had been drilled a hole large enough to receive the dead bee. Resin, which had been melted, was then poured back over the insect, encasing it in an apparently genuine amber prison.

(Slightly edited to fit - Editor)

National Parks Get New Name

From ALAA Issue, 1st Quarter, 1997

In a recent article entitled "The Taking of America", by Karen Lee Bixman, it was suggested that Americans might be losing control of management of some of our most precious assets, our National Parks. Several National Parks already have entrance signs calling them "International Biospheres", a creation of UNESCO, part of the United Nations. The facts seem to be that because of this UN designation, UN is becoming "advisors" on management of our National Parks.

The ALAA would not be officially concerned except that the management concept of these "International Biospheres" divides them into 3 sections, a wilderness zone, a buffer zone and a cooperation zone. Therefore some of our collecting sites are in "harm's way". It is interesting to us that this whole concept was first

brought to our attention through an article by June Gulp Zietner in the Lapidary Journal, July 1988 entitled "IS THE ROCK COLLECTOR AN ENDANGERED SPECIES" in which June pointed out that a proposed enlarging our National Parks was a real threat to many popular collecting areas. Now it looks like they may have found a different way to restrict our activities. The ALAA is not certain of just how many of our National Parks have received this designation, but we are told it is quite a number of them. Of note is a Bill in Congress, introduced by Congressman Don Young, (HR 901 in the 105th Congress) which is titled The American Land Sovereignty Protection Act which would terminate any UN control over our National Parks. Possibly we should support it. JS&BC

BOOK REVIEWS

by Dolly Johnson in *Chips & Tips*, Jan '97

Agates of Northern Mexico, by Ben Cross

The author, Ben Cross, begins his book with a narrative on the people and places in Northern Mexico. The book continues on to describe, in vivid detail, the origin and types of nearly 75 Mexican agates and geodes, including various agate forms from Laguna, Coyamito, Casa Grande, Chihuahua, and other regions. While the author's account of the pioneers of Mexico agate prospecting and trade provides a historical context for collectors, the information on supply, marketing, importation and lapidary treatment are invaluable to today's professional collectors and amateur enthusiasts. And throughout, the text is complemented with an outstanding array of photographs.

Photographing Minerals, Fossils, and Lapidary Materials, by Jeffrey Scovil

A world-renowned gem and mineral photographer, Jeffrey Scovil, guides the reader through the basic concepts of photography and then explores the techniques required to photograph opaque and transparent mineral, fossil, and gem materials. While primarily a work about studio photography, there is a chapter on location photography.

This beautifully designed book features over 150 of the author's own images of gems, minerals, and other geological subjects. Most of the color photographs are selected examples from the collections of other world-class gem and mineral photographers.