

Since 1996, workshops on making indigo dyes and vats by fermentation have been held at home and abroad.

In the world, we have wide various indigo plants. Sukumo made from dry leaves of *Polygonum tinctorium*, couched woad made from fresh leaves of *Isatis tinctoria*, precipitate indigo made from *Indigofera spp* and *Strobilanthes cusia*, these dyes are able to store for long time
We research and promote to make various indigo vats fermented with indigo dyes, wood ash lye and wheat bran, other material is only a little shell lime or slake lime for keeping pH. This method is good for fastness of dyeing, economy and sustainable, and cultivating indigo plants, we can make an indigo vat and dye natural fibre anywhere and anytime, then produce wide variety textiles.



Since 2013, research of producing Ryukyu-Ai(indigo paste) with *Strobilanthes cusia* in Okinawa, and make vats.

We made the reports every year and analyze bacteria in indigo paste and fermented indigo vats with scientists and dyers.



2007-2016 NPO Earth Network Activity Report

Cultivation and development of dye plant and dyeing technique, distribution of seeds, natural fibre: ramie, cotton, Kozo paper, silk, wool, dyeing material preparation, dyeing workshop held at home and abroad.



↑ *Rubia akane* ↓ raw 2~3 years roots



↑ *Lithospermum erythrorhizon* ↓ raw roots



↑ *Phellodendron amurense* berry ↓ Inner bark



↓ raw ramie cloth, local silk yarn dyed with akane ↓ silk cloth dyed with raw purple roots ↓ raw ramie clothes dyed with dye&medicinal plants



Members hold annual workshops at each branch and keep detailed on research notes,
then exhibited them with art works and reports in museum

Resist dye workshop in Hokkaido, 2008



Over-dyeing:Indigo&safflower workshop,Tokyo 2009



2009 Exhibition in GEIC, Tokyo



Rubia pigments workshop in Fukuoka, 2012



Over-dyeing:Indigo+Safflower workshop, Shiga 2012



Natural Color Exhibition 2012 Miyagi



Making silk floss with cocoon at the annual meetings in Tokyo,2015. Making Katanori for BINGATA at the annual meetings in Sapporo,2015



A lecture and exhibition of Ranru and Tsutsugaki with NDPC in Hosuido Collection, Hiroshima, 2013



MIHO Museum hold wooden block print workshop using madder in Exhibition, May30-31, 2014.



A lecture, exhibition and workshop In the 2015 annual meeting in The Coloured Gallery in Tokyo



Open workshop with medicinal & dye plants in Health Science University of Hokkaido, 2009-2016

Dyeing raw silk into deep indigo colour with each extraction of indican and enzyme from fresh *Polygonum tinctorium* leaves



Knead raw purple root (*Lithospermum erythrorhizon* roots) with warm water and dye silk with the extraction.

