



NATIVE AMERICAN HERBAL MEDICINES

A Brief History;
With Current USPTO Practices For
Their Examination

Examiner Patty Leith
Technology Center - 1600 Biotechnology
Art Unit - 1655 Body Treating Plant, Microbial and
Animal Extracts

*Everything on the Earth has a purpose,
every disease an herb to cure it,
and every person a mission.
This is the Indian theory of existence.*

~ Mourning Dove, Christine Quintasket (1888-1936) Salish

Coming To America

- 13,000 -18,000 Years Ago
- Bering Strait

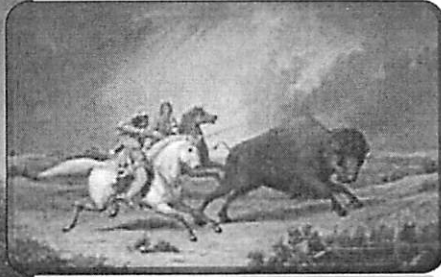


Geographical Location

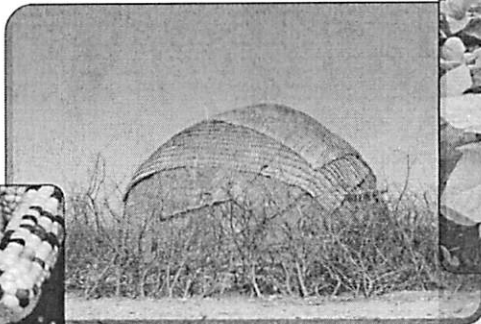
- Resulted in different ways of living
- Coastal – Stationary
- Plains- Nomadic



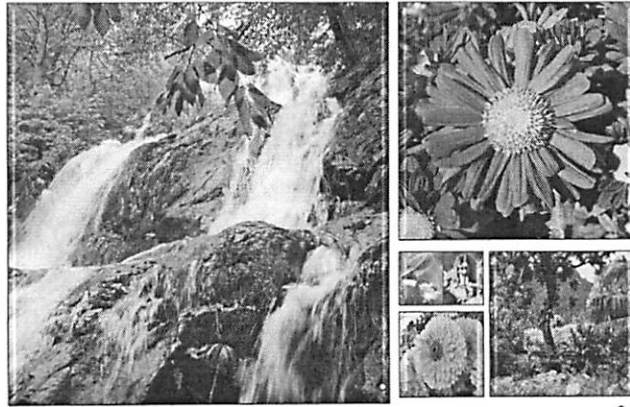
Nomadic Tribes



Stationary Tribes

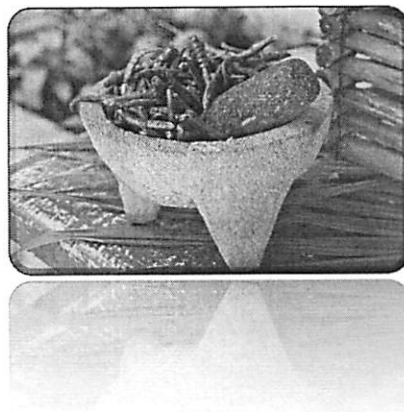


Native American Natural Resources

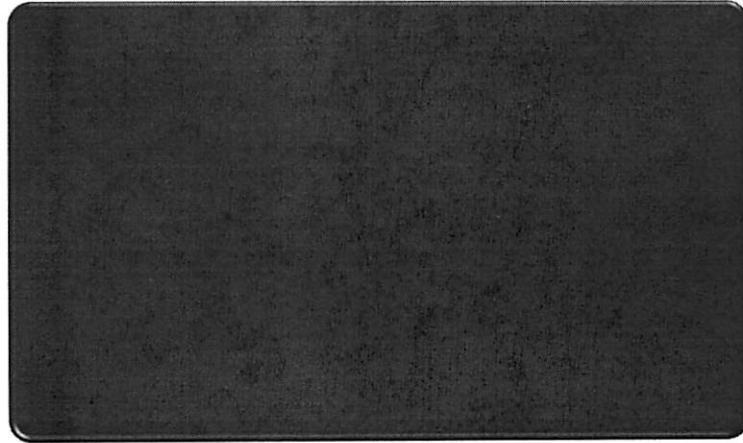


Medicinal History

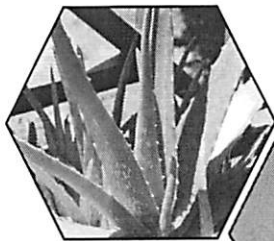
- Verbally passed down through generations
- Few, if any written records



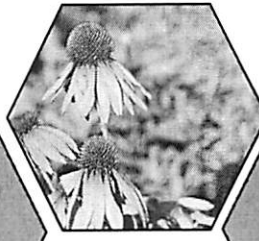
Native American Petroglyphs



History of Native American Medicine



Perhaps
40,000
Years



Perhaps
24,945
Plants

Medicine Men and Women- Shamans



Medicine Bag

- Used by Native American laymen to hold spiritual items
- Used by Shamans to hold spiritual items and medicinal herbs

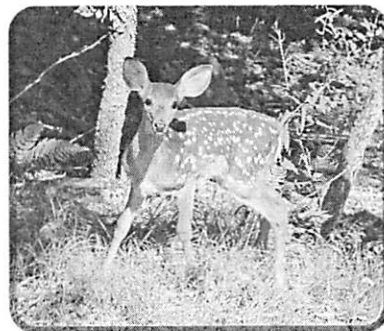


Medicine Wheel Big Horn, Wyoming



Native American Herbal Knowledge

- Observing behaviors of sick animals
- Trial and error



Native American Medicine and European Settlers



- Reliance on Native's medicine
- Life was arduous
- Gangrene
- English Physicians Intrigued

Nature Is Their Great Apothecary

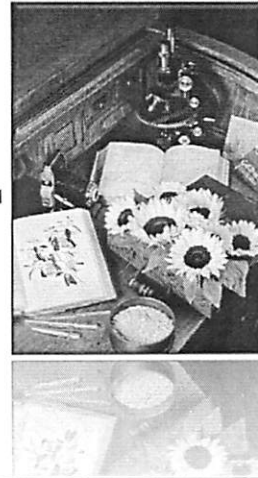
~ John Martyn 18th Century

Historical Documentation

John Martyn et al. "The Philosophical Transactions" ~ 1722

John Brickell "The Natural History of North Carolina" ~ 1731

Jacques Cartier ~ St. Lawrence Expedition ~ 1534



Herbal Medicine Used Today

- Many have roots in Native American Herbal Medicine
- 7 of the 10 most top-selling herbals are Native American-derived

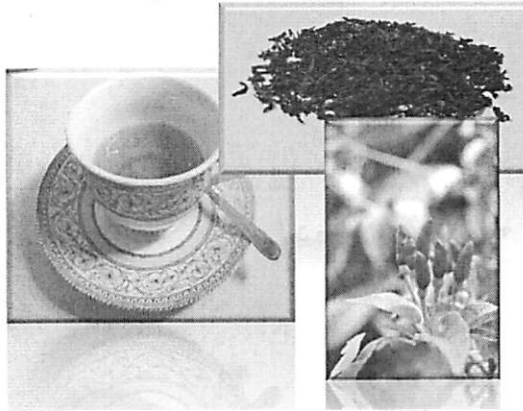


Types of Herbal Preparations

- Water Extracts~ teas, infusions, decoctions

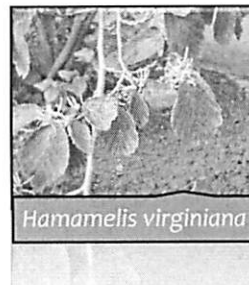
- Tinctures

- Poultices



Witch Hazel

- Distillate used to treat ~ wounds, inflammation
- Distillate contains many phytochemicals such as catechins, quercetin and proanthocyanins
- Quercetin and proanthocyanins are anti-inflammatory



Echinacea



- *E. angustifolia*, *E. pallida* and *E. purpurea*
- Used primarily for cold symptoms
- Contains polysaccharides which have been shown to invoke immune response

Sage

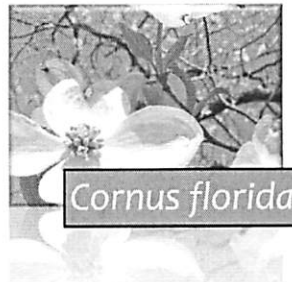


Salvia officinalis

- Spiritual Herb
- Used as an anti-convulsive
- Sores and ulcers

Dogwood

- Used for treating cold symptoms
- Contains tannic acids and lignans

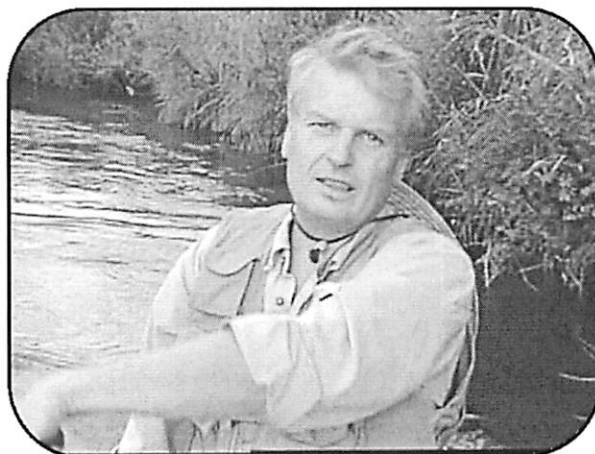


Valerian

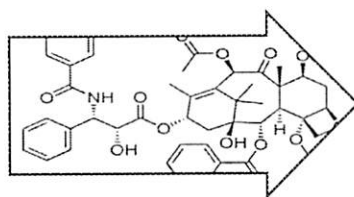
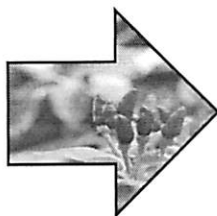
- Decoction used for epileptic seizures
- Contains hesperidin ~ anti-inflammatory
- Contains valtrate and isovaltrate ~ decrease motor locomotion



Bloodroot ~ *Sanguinaria canadensis*



Modern Pharmaceutical Herbal Industries



Pharmaceuticals
Nutraceuticals
Cosmeceuticals
Functional Foods
Pesticides

Examining Native American Herbals

35 USC § 101



Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1. A composition comprising *Valeriana officinalis*.

Is unpatentable – broad enough to read on a natural product

Examining Native American Herbals



- Claim 1. A composition comprising hesperidin.
- Still broad enough to read on a product of nature
- Unpatentable under 35 USC § 101

Examining Native American Herbals

- Claim 1. A composition consisting of hesperidin.
- Would overcome the 35 USC § 101 rejection



Examining Native American Herbals

- 35 USC § 102(b)
- Valerian is not patentable because it was known more than one year previous to Applicant's earliest US effective filing date



Examining Native American Herbals

35 USC §103(a)

It is obvious to combine ingredients (such as herbals)
known for the same purpose:

In re Sussman, 136 F.2d 715, 718, 58 USPQ 262, 264 (CCPA
1943)

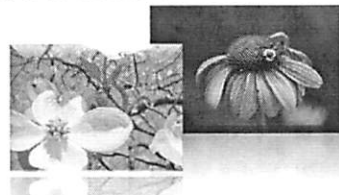
In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072
(CCPA 1980)



Examining Native American Herbals

- Claim 1. A composition for treating brittle nails comprising a water extract of *Cornus florida* and a water extract of *Echinacea angustifolia*.

- Obvious because both herbal extracts were known for treating colds



Searching Resources

Scientific and Technical Information Center (STIC)

Scientific and Technical Network (STN)

Examiner Automated Search Tool (EAST)

Web Examiner Search Tool (WEST)

ProQuest (NPL Internet Database)

Library of Congress (LOC)

Internet (Google/Google books)

References Cited

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 2. Wikipedia: http://en.wikipedia.org/wiki/Great_Plains
 4. www1.umn.edu/ships/modules/boll/native-herbal.pdf
 6. Borchers et al. INFLAMMATION AND NATIVE AMERICAN MEDICINE; THE ROLE OF BOTANICALS; American Journal of Clinical Nutrition, volume 72, No. 2, 339-347.
 7. <http://nature.sbc.edu/fnh/medicdogwood.html>
 8. www.pachs.net/web_of_healing/nativeamerican/commentary.html
 9. Anthony J. Cichoke: Secrets of native American Herbal Remedies Penguin, Jun 1, 2001
 10. Hazelhoff et al. SEPARATION OF VALTRATE AND ISOVALTRATE BY MEANS OF PREPARATIVE LIQUID CHROMATOGRAPHY; Pharmacy World and Science; Vol. 4, Number 1, 21-24 (1982)
 11. John Martyn: The Philosophical Transactions and Collections, to the End of the Year 1700 John Lowthorp and FRS, London
 12. John Brickell et al. "The Natural History of North Carolina" 1731.
 13. Bighorn Medicine Wheel: <http://solar-center.stanford.edu/AO/bighorn.html>
- All Native American Quotes were taken from: www.legendsofamerica.com/na-quotes.html
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Questions?

Thank you!

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