

New Intuition of Unique Features of Traditional Cosmetics in Novel Discovery

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ABSTRACT

The traditional system of medicine plays a crucial role in meeting primary healthcare needs. Systems of medicine originating in India, or those incorporated into Indian culture from elsewhere, are collectively known as the Indian system of medicine. Cosmetics are products intended to be rubbed, poured, sprinkled, sprayed on, introduced into, or otherwise applied to the human body or any part thereof for cleansing, beautifying, promoting attractiveness, and altering appearance. Traditional cosmetics, spanning centuries and cultures, offer a glimpse into the diverse ways humans have sought to enhance their appearance and well-being. Unlike their modern counterparts, traditional cosmetics rely heavily on natural ingredients derived from plants, minerals, and sometimes animal products. This focus on naturalness aligns with today's growing desire for clean and sustainable beauty solutions. Herbal cosmetics have become the first choice for many customers due to their potency, availability, and perceived lower risk of side effects. The field of herbal cosmetics is rapidly growing within the personal care industry. Cosmeceuticals are cosmetic preparations containing biologically active ingredients of plant origin. This review examines the use of herbal cosmetics and cosmeceuticals, highlighting traditional cosmetic systems and formulations intended for both beautifying and skincare purposes.

KEYWORDS: Traditional system of medicines, indian system of medicines, cosmetics, traditional cosmetics, herbal cosmetics.

I. INTRODUCTION

According to Indian regulations (D&C Act and Rule 1945), cosmetics encompass articles intended to be applied to the human body for purposes such as cleansing, enhancing beauty, promoting attractiveness, or altering appearance, including those used as components of cosmetics. Recent explorations into traditional cosmetics have revealed fresh insights into their distinctive features, enriching our understanding and appreciation of these age-old formulations. This newfound understanding underscores the inherent value of natural ingredients like plant extracts, minerals, and essential oils, which have been integral to various cultures for centuries. Advanced scientific analyses are shedding light on the molecular mechanisms and bioactive compounds responsible for their efficacy, elucidating why traditional cosmetics have endured through time. Moreover, these discoveries are driving innovations in contemporary skincare, blending historical wisdom with modern technology to develop products that are not only effective but also sustainable and gentle on the skin. This emerging awareness signals a revival in beauty practices, bridging the past and present to cultivate a future of holistic and well-informed skincare solutions.

CLASSIFICATION OF COSMETICS

Cosmetics according to their use:

- Use for skin: creams, powders.
- Use for nails: nail polish, nail polish removers.
- Use for the teeth and mouth: dentifrices and mouth wash.
- Use for the eyes: eye creams, eye liners.
- Use for the hairs: shampoo, hair dies.

Cosmetics according to their functions:

- Curative or therapeutic functions: anti per spirants and hair preparations.
- Protective functions: face powders.
- Corrective functions: face powders.
- Decorative functions: lipsticks, nail polish.

Cosmetics according to their physical nature:

- Aerosols: hair perfumes.
- Cakes: make up compacts.

- Emulsions: vanishing cream, cold cream.
- Oils: hair oils.
- Paste: tooth paste.
- Powders: face powders.
- Solutions: after shave lotions, hand lotions.
- Soaps: toilet soap, shaving soaps.
- Sticks: lip sticks.

TRADITIONAL COSMETICS IN TRADITIONAL SYSTEM OF MEDICINES

Traditional cosmetics have long been integral to various traditional systems of medicine, such as Ayurveda, Traditional Chinese Medicine (TCM), and Native American healing practices. These systems, rooted in centuries-old wisdom, utilize natural ingredients like herbs, minerals, and oils not only for their beautifying effects but also for their therapeutic benefits. In Ayurveda, for instance, turmeric and sandalwood are renowned for their anti-inflammatory and antimicrobial properties, promoting both skin health and overall wellness. Similarly, TCM employs ingredients like ginseng and pearl powder, which are believed to rejuvenate the skin and balance the body's internal energies. These traditional cosmetics are crafted based on holistic principles, aiming to enhance beauty by harmonizing the body, mind, and spirit. As interest in natural and integrative health approaches grows, the unique features of these traditional cosmetics continue to gain recognition for their dual role in enhancing appearance and supporting health, underscoring the timeless relevance of traditional medicine in contemporary beauty practices.

CHINESE SYSTEM OF MEDICINE

The Chinese system of medicine, known as Traditional Chinese Medicine (TCM), is a holistic approach to health and wellness that has been practiced for over 2,500 years. TCM is rooted in the philosophy of balancing the body's vital energy, or Qi, through the interconnection of mind, body, and environment. It encompasses a variety of practices, including acupuncture, herbal medicine, dietary therapy, and exercises such as Tai Chi and Qigong. Herbal medicine, a cornerstone of TCM, utilizes a vast array of plants, minerals, and animal products, meticulously combined to address specific health issues and restore balance. The system also employs diagnostic techniques such as pulse and tongue examination to tailor treatments to individual needs. TCM's holistic and preventive approach to healthcare emphasizes the body's natural ability to heal and maintain health, making it increasingly popular worldwide as a complementary and alternative medicine. The integration of TCM principles with modern medical practices continues to offer valuable insights into natural and sustainable healthcare solutions.

- Ginseng: Ginseng rejuvenates skin, prevents UV damage and promote collagen production, hence it is most commonly used for reducing signs of ageing.
- Chinese wolfberries (Goji berries): It contains zinc oxide, a common ingredient in sunscreens and boost collagen and elastin production, thereby improving your skin complexion block out harmful UVA and UVB rays from the sun.
- Green tea: It is high in bioflavonoids and catechins that increase skin elasticity and reduce uneven skin tone.

ADVANTAGES

- Promotes natural healing – Traditional Chinese Medicine helps the body to heal itself naturally. It doesn't rely on artificial methods, but boosts your body's own healing processes.
- Uses holistic approach – This type of medicine looks at the whole person, not just one part. It believes that all parts of the body are connected and should be treated together.
- Lowers side effects – Compared to some modern medicines, Traditional Chinese Medicine can have fewer side effects. This means it can be safer and more comfortable for you to use.
- Encourages lifestyle balance – It's not just about treating sickness, it's also about living a balanced life. This includes eating well, exercising, and taking care of your mental health.

DISADVANTAGE

- Unproven effectiveness in some cases – Traditional Chinese Medicine (TCM) has instances where its effectiveness is unproven. This means that it might not always work for some health problems.
- Risk of toxicity or contamination – There's a risk that TCM can be toxic or contaminated. This is because it often uses plant, animal, and mineral products.
- Potential for allergic reactions – Some people might have allergic reactions to TCM. This is because they might be allergic to the plants, animals, or minerals used.

- Difficulty in standardizing treatments – It's hard to standardize TCM treatments. This is because treatments are often made especially for each person's health problem.

UNANI SYSTEM OF MEDICINE

The Unani system of medicine, also known as Unani-Tibb, is a traditional healing practice with roots in ancient Greek medicine as developed by Hippocrates and later refined by Arab and Persian physicians like Avicenna. This holistic system, introduced to India by the Arabs and Persians, emphasizes the balance of the four humors: blood, phlegm, yellow bile, and black bile. According to Unani principles, health is achieved through the harmonious balance of these humors, while disease results from their imbalance. Treatments in Unani medicine include herbal remedies, dietary regulation, physical therapies, and regimental therapies such as massage and cupping. Herbal medicine plays a pivotal role, utilizing a wide range of plants and natural substances to restore and maintain health. Unani medicine also places great importance on preventive care and the maintenance of a healthy lifestyle. With its integrative approach that combines medicinal and lifestyle interventions, the Unani system continues to be practiced widely in India and other parts of South Asia, contributing valuable perspectives to global complementary and alternative medicine practices.

- Lavender oil: Lavender oil is used to treat acne, eczema, psoriasis, and other skin conditions. It is also used to promote relaxation and reduce stress.
- Sandalwood oil: Sandalwood oil is used to treat dry skin, wrinkles, and age spots. It is also used to soothe the scalp and promote hair growth.
- Rose oil: Rose oil is used to treat dull skin and uneven skin tone. It is also used to give hair a soft and silky texture.

ADVANTAGE

- Unani medicines have a long history of safe human usage although not tested scientifically on animals. They offer safety from after effects.
- The human body easily develops resistance to synthetic drugs. Simultaneously our body responds well to natural substances.
- The skin and scalp are influenced at the cellular level, helping to improve normal function. Unani medicines particularly suites our skin and hair.
- Herbal/ plant source drugs have a mild effect but have powerful and specific healing properties.

DISADVANTAGE

- The use in Unani medicine of precious stones and minerals, the chief ingredients of many polyformulations-medicines containing multiple ingredients, is expensive.
- Those items often are unavailable as well, thereby hindering effective treatment.
- Drugs have slower effects as compare to allopathic dosage form.

HOMEOPATHY SYSTEM OF MEDICINE

Homeopathy is a system of medicine founded in the late 18th century by the German physician Samuel Hahnemann. It is based on two main principles: "like cures like" (*similia similibus curentur*), which posits that a substance causing symptoms in a healthy person can be used to treat similar symptoms in a sick person, and the "law of minimum dose," which suggests that the lower the dose of the medication, the greater its effectiveness. Homeopathic remedies are derived from natural substances, including plants, minerals, and animals, and are prepared through a process of serial dilution and succussion (vigorous shaking). These highly diluted solutions are believed to stimulate the body's self-healing mechanisms. Homeopathy is holistic, considering the patient's physical, emotional, and psychological state in diagnosis and treatment. Despite controversy and skepticism from the mainstream medical community due to the lack of empirical evidence and the extreme dilutions used, homeopathy remains popular worldwide. Many individuals seek it for a variety of ailments, attracted by its gentle, individualized approach and emphasis on natural remedies. *Apis Mellifica* (European Honeybee): Managing skin rashes, hives, and redness.

Bovista (Puff ball fungi): Useful for managing pimples.

Arsenic Album: Beneficial for dry, rough rashes with flaking.

ADVANTAGE

- These products are gentle on your skin. Products made with all-natural ingredients on the other hand support the natural texture of your skin, which makes it ideal for skin regeneration.
- Plant extracts and minerals can stimulate cell production. This will prevent premature ageing and help prevent the formation of fine lines and wrinkles.

- They will moisturize your skin and help in the prevention of fine lines on the skin which is important for overall skin health.

DISADVANTAGE

- Less scientific proofs: It receives criticism from other medical organizations and medical practitioners.
- Not useful in emergency: These drugs act slowly. In surgery or any other situation, when the patient needs immediate treatment, then this homeopath cannot help you in any way.
- Too many restrictions: There are many types of restrictions to be followed before and after the consumption of homeopathic medicines. For example, for half an hour you cannot eat or drink anything. Oily and sour things should not be consumed.

AYURVEDIC SYSTEM OF MEDICINE:

The Ayurvedic system of medicine, one of the world's oldest holistic healing systems, originated in India over 3,000 years ago. Rooted in the ancient texts known as the Vedas, Ayurveda emphasizes the balance between mind, body, and spirit to maintain health and prevent illness. It operates on the principle of three fundamental bodily energies, or doshas—Vata, Pitta, and Kapha—each governing different physiological functions. Health is achieved when these doshas are balanced, and disease occurs when they are out of harmony. Ayurvedic treatments are highly personalized, incorporating a wide range of practices including herbal medicines, dietary guidelines, physical therapies, yoga, and meditation. Herbal remedies in Ayurveda utilize various plant-based substances, often combined in precise formulations to target specific health issues. Additionally, Ayurveda places significant emphasis on lifestyle practices, seasonal routines, and detoxification techniques like Panchakarma. With its comprehensive and integrative approach, Ayurveda not only addresses physical ailments but also promotes overall well-being, making it increasingly popular globally as a complementary and alternative medicine system.

BASIC PRINCIPLE: Every human being is born with a unique proportion of biologic principles vata, pitta, kapha, representing the individual genetic code which takes part in the forming of our mental and physical characteristics during the course of life, the dosha proportions deviates from its original state for various reasons and subsequently, it has an impact on our mental and physical health conditions. Psychic consciousness, thoughts, emotions, relationships, diet, daily rhythm, lifestyle, season and our environment, all influence the balance or imbalance of the doshas.

- Turmeric (*Curcuma longa*): Known for its anti-inflammatory and antioxidant properties, turmeric helps brighten skin, reduce hyperpigmentation, and soothe irritation.
- Ashwagandha (*Withania somnifera*): This adaptogenic herb helps manage stress, a major contributor to skin concerns like acne and wrinkles. It also promotes collagen production for firmer skin.
- Amla (*Emblica officinalis*): Rich in vitamin C and antioxidants, amla promotes collagen synthesis, improves skin elasticity, and combats free radical damage

ADVANTAGE

- Safe for skin: Herbal cosmetics are the safest and most effective. They are generally hypo-allergenic which means that they do not cause any type of skin allergies as caused by other harmful products.
- Natural ingredients: Herbal cosmetics use various plant extracts in their formulations to make them natural. Moreover, herbal products do not contain any harmful synthetic chemicals.
- Suitable for all skin type: There are mainly 5 skin types namely; oily, dry, normal, combination, and sensitive. Herbal Ayurvedic cosmetic products are suitable for all skin types.
- No side effects: Herbal products do not contain parabens which are often a reason for probable side effects.

DISADVANTAGE

- Limited scientific research: While traditional uses exist, robust scientific research on the efficacy and safety of many herbs for cosmetic use is still needed.
- Standardization and quality control: Ensuring consistent quality and purity of herbs can be challenging due to diverse sourcing and traditional preparation methods.
- Regulatory hurdles: Depending on the specific herbs and claims, compliance with international cosmetic regulations can be complex.
- Potential for allergic reactions: Some individuals may be allergic to specific herbs, requiring careful product selection and patch testing.

AFRICAN SYSTEM OF MEDICINE: The African system of medicine, often referred to as traditional African medicine, encompasses a rich diversity of healing practices and beliefs deeply rooted in the continent's cultural and spiritual heritage. This holistic approach to health and wellness integrates the use of medicinal plants, spiritual rituals, and therapeutic techniques passed down through generations. Traditional healers, such as herbalists, diviners, and spiritualists, play a central role in the community, using their extensive knowledge of indigenous flora and fauna to treat a wide range of ailments. Remedies often include herbal concoctions, infusions, and poultices made from locally sourced ingredients, emphasizing the natural and organic. The practice also incorporates spiritual elements, such as ancestral worship and ritualistic ceremonies, recognizing the interconnectedness of physical, mental, and spiritual health. Despite the advent of modern medicine, traditional African medicine remains widely practiced and respected, providing accessible and culturally relevant healthcare to millions. Its holistic principles and deep connection to nature continue to offer valuable insights into sustainable and integrative health practices.

Aloe vera: A gel-like substance that is known for its soothing and healing properties. Aloe vera can be used to treat a variety of skin conditions, including sunburn, acne, and eczema.

- **Lemon grass (Cymbopogon citratus):** lemon grass provides Anti-dandruff, fragrance effect in the body.
- **Coconut (Cocos nucifera L.):** the coconut oil helps to preventing hair damage and promotes strength to the hair.

ADVANTAGES

- **Unique and diverse ingredients:** ATM offers a vast array of natural ingredients not commonly found in mainstream cosmetics, potentially leading to novel and effective products.
- **Sustainability and ethical sourcing:** Sourcing ATM ingredients from local communities can promote sustainable practices and fair trade.
- **Rich in antioxidants and nutrients:** Many ATM ingredients like Shea butter and honey are rich in antioxidants and nutrients beneficial for skin health.
- **Natural and potentially less irritating:** Some individuals find ATM ingredients gentler and less irritating than synthetic cosmetic ingredients.

DISADVANTAGE

- **Limited scientific research:** While some ATM ingredients have been used traditionally for centuries, their efficacy and safety for cosmetic use may not be fully understood due to limited scientific research.
- **Standardization and quality control:** Ensuring consistent quality and purity of ATM ingredients can be challenging due to diverse sourcing and traditional preparation methods.
- **Regulatory hurdles:** Depending on the specific ingredients and claims, compliance with international cosmetic regulations can be complex.
- **Potential for allergic reactions:** Some individuals may be allergic to specific ATM ingredients, requiring careful product selection and patch testing

TYPES OF DOSAGE FORMS

CHINESE SYSTEM OF MEDICINE

- **Decoctions:** Decoctions are made by boiling herbs in water until the active ingredients are extracted. The resulting liquid is then drunk or used topically
- **Pills:** Pills are made by mixing powdered herbs with other ingredients such as honey or wax. The mixture is then shaped into small balls and allowed to harden.
- **Powders:** Powders are made by grinding herbs into a fine dust. Powders can be taken orally, mixed with water or juice, or applied topically.

UNANI SYSTEM OF MEDICINE

- **Solid dosage forms: Sufoof (powder):** Sufoof is a simple dosage form consisting of finely ground herbs, minerals, or other natural substances.
- **Semisolid dosage forms: Majoon (electuary):** Majoon is a semisolid dosage form prepared by mixing herbal powders with honey or sugar.
- **Liquid dosage forms: Sharbat (syrup):** Sharbat is a sweet syrup prepared by dissolving sugar in herbal decoctions or infusions.

HOMEOPATHY SYSTEM OF MEDICINE

- **Pills:** Pills are the most common dosage form for homeopathic medicines..
- **Tablets:** Tablets are another common dosage form for homeopathic medicines. They are similar to pills, but they are compressed into a tablet form.

- Liquid drops: Liquid drops are often used for homeopathic medicines that are intended to be taken sublingually (under the tongue).

AYURVEDA SYSTEM OF MEDICINE

- Swarasa, Kalka, Kwatha, Sheeta, Asava and Arista, Churna, Vati Guggul, Lehya and Taila.

AFRICAN SYSTEM OF MEDICINE

- Pastes: Igbo Ufo (Nigeria): A mixture of turmeric, honey, and palm oil used for skin brightening and scar reduction. Azande Face Mask (Central African Republic): Made with kaolin clay, charcoal, and herbs for deep cleansing and pore tightening.
- Infusions and decoctions: Rooibos Tea Rinse (South Africa): Anti-inflammatory and antioxidant properties soothe irritated skin and scalp. Moringa Hair Infusion (East Africa): Strengthens hair strands and promotes growth with its rich protein and vitamin content.
- Oils and butters: Shea Butter (West Africa): A versatile moisturizer rich in vitamins A, E, and F, known for its skin-softening and anti-inflammatory benefits. Marula Oil (Southern Africa): High in antioxidants and fatty acids, promotes skin elasticity and reduces signs of aging.
- Powders: Oud Wood Powder (North Africa): Known for its antiseptic and astringent properties, helps reduce blemishes and control oil production. Black Soap Powder (West Africa): Made from plantain skins, palm ash, and other natural ingredients, offers deep cleansing and exfoliation.

PREPARATION OF TRADITIONAL SYSTEM OF COSMETICS

CHINESE SYSTEM OF MEDICINE: GINSENG DECOCTION

- Rinse 10-15 grams of dried ginseng root under running water to remove any dirt or debris. Place the ginseng root in a pot with 500ml of water. Bring the water to a boil over high heat. Once the water is boiling, reduce the heat to low and simmer for 30 minutes. After 30 minutes, turn off the heat and allow the decoction to cool. Once the decoction is cool, strain it into a clean container. The ginseng decoction is now ready to use.
- To apply ginseng decoction topically, simply soak a cotton pad in the decoction and apply it to the affected area. You can also apply the decoction directly to the skin using your fingers. Leave the decoction on the skin for 15-20 minutes, then rinse it off with warm water.

HOMEOPATHY SYSTEM OF MEDICINE: APIS MELLIFICA EXTRACT

- Live honey bees are placed in a clean, wide-mouthed suitable container, preferably of glass. After mincing and shaking, the menstrum is poured in, and macerated for fourteen days, swirling three times daily. The mother tincture obtained is filtered. It is important that the bees should not be pressed. It is repeatedly diluted.
- Dried bees: The dried spores of the bees are collected by cutting open the mature fruit bodies. The spores are then ground with lactose and mixed with alcohol and water. The mixture is shaken and diluted to the desired potency.

UNANI SYSTEM OF MEDICINES: ZANGAR MARHAM

- Zangar was prepared according to the method mentioned in Khazain-ul-Advia of Najm-ul-Ghani.
- 300 grams of thin copper sheets were taken and dipped in 600 ml of Sirka (vinegar) made of sugarcane in a new copper vessel, and Kaproti (covering of pot with clay and cloth) was done.
- After 6 months, the vessel was dug out and lid of pot was opened. A greenish blue colour compound (Zangar) was separated from corrode copper sheets. It was found that 1/3rd part of the copper had converted into Zangar after interaction with sirka. The quantity of Zangar was weighed and noted down. Zangar was sent analytical wing, in an aseptic air tight plastic packing for identification.
- The results of final product are as follows Three hundred grams of thin copper sheets and 600 ml of sirka were taken and from this combination about 100.90 gm. (33% approx.) of Zangar was formed.

AYURVEDIC SYSTEM OF MEDICINES: KUMKUMAADI THAILAM

- Boil water with herbs to make a decoction.
- Simmer the decoction until only 1/4 part water remains.
- Separate the liquid content (decoction) and discard the residues herbs.
- Add oils, herb powders, and goat milk to the decoction.
- Boil in mild fire until the Thailam is prepared.
- Mix a paste of saffron with rose water into the oil.
- Cool it down and preserve it in a glass bottle.

- You can also add a little water to prepare a smooth paste (Kalka) of 12g each of Manjistha, Mulethi, Mahua, Lac, and Pattanga. Then, add both Kwath and Kalka to 192 ml Sesame Oil and boil until only oil remains.
- Excessive use of this oil on naturally oily skin can cause increased oiliness and acne. People with sensitive skin types might experience allergic reactions such as rashes, brown spots, or pimples from this oil.

AFRICAN SYSTEM OF MEDICINE: SHEA BUTTER

- **Harvesting:** Ripe Shea fruits (*Vitellaria paradoxa*) are collected from the Shea tree. The fleshy pulp is removed, revealing the hard nut inside.
- **Drying:** The nuts are dried in the sun for several days to remove moisture, preventing them from spoiling.
- **Grinding:** The roasted nuts are ground into a fine paste using a mortar and pestle or a grinding mill.
- **Whipping:** Water is added to the paste and it is vigorously churned or whipped by hand for several hours. This process separates the oil (Shea butter) from the non-oily solids.
- **Straining:** The whipped paste is strained through a cloth to remove any remaining solids.
- **Filtering (Optional):** Some producers may filter the Shea butter to remove any further impurities.
- **Cooling and Solidification:** The Shea butter is allowed to cool and solidify, resulting in a creamy, off-white product.

EVALUATION

CHINESE SYSTEM OF MEDICINE: GINSENG

Reversed phase-high performance liquid chromatography (RP-HPLC) is one of the most common method of determination, which involves the separation of molecules on the basis of hydrophobicity. The separation depends on the hydrophobic binding of the solute molecule from the mobile phase to the immobilized hydrophobic ligands attached to the stationary phase.

AYURVEDA SYSTTEM OF MEDICINE: KUMKUMAADHI THAILAM

- **Appearance:** The Thailam should be a clear, red-orange liquid.
- **Odour:** The Thailam should have a characteristic odour.
- **Specific gravity:** The specific gravity of the Thailam should be between 0.90 and 0.95.
- **Refractive index:** The refractive index of the Thailam should be between 1.47 and 1.49.
- **Acid value:** The acid value of the Thailam should not be more than 2.0.
- **Saponification value:** The saponification value of the Thailam should not be less than 180.

AFRICAN SYSTEM OF MEDICINE: SHEA BUTTER

- **Melting Point:** 27-35°C, varies based on fatty acid composition.
- **Saponification Value:** 188-195 mg KOH/g, reflects the average molecular weight of the fatty acids.
- **Iodine Value:** 35-60 g I₂/100g, indicates the degree of unsaturation and oxidative stability.
- **Peroxide Value:** Less than 10 meq O₂/kg, measures primary oxidation products and freshness.
- **Unsaponifiable Matter:** 3-9%, contains non-triglyceride compounds with potential bioactivities.

HOMEOPATHIC SYSTEM OF MEDICINE: APIS MELLIFICA

- **Relative Density:** The relative density of Apis mellifica extract is 0.890-0.910 (British Pharmacopeia vol 4, 2015).
- **Dry Residue:** The dry residue is not less than 1.25 and not more than 1.60% (British Pharmacopeia vol 4, 2015).
- **Chemical Identification:** In reaction with chemical reagents the extract of Apis Mellifica extract showed the presence of tannins, saponin glycosides, carbohydrates, and steroids.
- **Spectroscopy (FTIR):** Apis mellifica revealed significant peaks at 3235.87 (OH), 2937.57 (C-H), 1621.79 and 1519.64 (aromatic ring), 1050 (C-O-C) cm⁻¹.

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