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မြန်မာဝတ္ထုတိုများမှ အပြောနှင့်အပြုဖန်တီးမှုစွမ်းရည်  
သင်းသင်းဆွေ

သုတေသန စာတမ်းအကျဉ်း

ဤစာတမ်းသည်မြန်မာဝတ္ထုတိုများမှ အပြောနှင့်အပြုကို လေ့လာထားသော စာတမ်း  
ဖြစ်ပါသည်။ ထိုသို့လေ့လာရာတွင် ဝတ္ထုအတတ်ပညာမှ အပြော၊ အပြုသဘောကို  
လေ့လာတင်ပြပါမည်။ ထို့နောက်အပြော၊ အပြု အတတ်ပညာကို မြန်မာဝတ္ထုတိုတွင်  
မည်သို့ဖန်တီးရေးဖွဲ့နိုင်မှု စွမ်းရည်ကိုဖော်ထုတ်တင်ပြပါမည်။

## **The Study of Tanintharyi's Ancient Coins Used in Mon-Khmer Language of Austro-Asiatic Family**

Arkar Moe Thu\*

### **Abstract**

The Linguists accepted that Language and Literature are the heart of the community in which human beings inhabitants. It is sure that if we study the language used in coins that are found in the ancient Tanintharyi city, we can trace the culture of the community who has ever lived there. We are sure to say that when we approach to study the culture of a certain community, their language, custom, culture, anthropology, archaeology, chemistry, geography and geology should be included in the study. All of them are connected one another and inseparable so that we can find out the complete figure of the culture. Moreover, the paper will, I suppose, mention how the people migrated and inhabited here and there in the region though the paper is based on their language and culture. We do hope that if the language and picturesque used in the coins are carefully and systematically studied, it can indicate the social structure of the people in Tanintharyi. In ancient Tanintharyi, various religions, syncretism were practiced and it had been a shipyard. It has well established culture and its own coins had been used before the period of Pagan. So, we should study the coins which are found in Tanintharyi to find out everything we love to know.

**Key words:** Tanintharyi, coins, Mergui, custom, culture, community

## The Important Role of Reason in Plato's Philosophy

Thura Oo<sup>1</sup>, Nyo Mi Tun<sup>2</sup>

### Abstract

This paper is an attempt to show that the role of reason is important in all the area of Plato's philosophy. According to Plato, the genuine knowledge can be obtained through reason. The reason alone for Plato can lead to knowledge of the pure form of good. This paper will contribute to realization that knowledge based on reason is important to living a good life.

**Key words:** reason, knowledge, form, idea, good

## The Difference Between Horizontal and Vertical Electrospinning Techniques for TiO<sub>2</sub> Electrospun Ultrafine Fibres

Nay Myo Tun<sup>1</sup>, Myint Myint Moe<sup>2</sup>

### Abstract

Titanium dioxide nanofibers were fabricated by home-made electrospinning in horizontal and vertical experimental set-ups. Electrospun titanium dioxide (TiO<sub>2</sub>) nanofibers are prepared by calcination titanium isopropoxide (TiP) and 2- Methoxyethanol (CH<sub>3</sub>OCH<sub>2</sub>CH<sub>2</sub>OH) with different molar ratios and it was formed on Al-foil substrate by different spinning times. TiO<sub>2</sub> sol solution (Sol-Gel) was examined by the analytical method such as TG-DTA and XRD analyses. In addition, SEM images showed that Anatase TiO<sub>2</sub> fibers were found to be about 120 nm diameters on the Al foil in the 30 minutes (horizontal) and 40 minutes (vertical) setups spinning time.

Key words: Electrospinning technique, Nanofibers, TG-DTA, XRD and SEM

## Preliminary Study on Wild Mammals in Kadan and Thandar Islands, Tanintharyi Region

Aye Mi San<sup>1</sup>, Thida Shwe<sup>2</sup>, Thin Zar Aung<sup>3</sup>, and Thi Thi Hlaing<sup>4</sup>

### Abstract

We have collected data on the diversity of wild mammals in Kadan and Thandar Islands using interview survey, questionnaire survey and direct observation during January, 2011. The main goal of this research was to survey of mammalian diversity and their current status in study areas. Totally 34 species of wild mammals belonging to 17 families and nine orders were reported in preliminary study. Among the recorded 34 species, 29 were terrestrial mammals and five were aquatic mammals. The order Rodentia is the highest reported species (26.47%) in study period. The long-lasting existence of villages and population increased; the natural forest had been converted to agricultural field, dam construction and other infrastructure. Therefore, the habitat of wild mammals become shrunk and fragmented in study areas, and hunting is also a serious problem for remaining wild mammal species such as pangolin, wild pig and monkey. For these reasons, current status of wild mammals was threatened by anthropogenic activity in Kadan and Thandar Islands.

Key Words: wild mammals, interview survey, habitat, anthropogenic



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## Study on Effects of Ethylene Absorbent ( $\text{KMnO}_4$ ) on Eggplants During Storage

Mi Mi Hlaing\*

### Abstract

The postharvest studies were carried out on two different of *Solanum* cultivars using the different postharvest techniques to minimize their postharvest deterioration quality and storage life under room temperature. The results of modified atmosphere (MA) storage using ethylene absorbent ( $\text{KMnO}_4$ ), 8%  $\text{KMnO}_4$  + HDPEB (High Density Polyethylene) treatment could minimize their cumulative weight loss and to retain the peel color. Moreover, increase in titratable acidity(TA) contents was directly correlated with increase in fruit firmness.

**Keywords:** Postharvest storage,  $\text{KMnO}_4$  treatments, *Solanum* cultivars.

### Introduction



## The Effect of Ethanol and Watery Extracts of *Eupatorium odoratum* Linn. (Bezeta) Leaves on Some Microorganisms

Tet Tun\*

### Abstract

One of the well-known Myanmar Traditional Medicinal Plant, Bezeta (*Eupatorium odoratum* Linn.) possessing Asteraceae family has been selected to investigate the effect of ethanol and watery extracts on some microorganisms. The preliminary phytochemical investigation revealed the presence of alkaloids,  $\alpha$ -amino acids, carbohydrates, flavonoids, glycosides, phenolic compounds, reducing sugar, saponins, steroids, tannins and terpenoids. *In-vitro* antimicrobial screening subjected by agar well diffusion method indicated that the watery extract of *Eupatorium odoratum* Linn. (Bezeta) leaves (inhibition zone range between 13 and 18 mm) possessed higher antimicrobial effect than that of the ethanol extract (inhibition zone range between 12 and 15 mm).

Key words : *Eupatorium odoratum* Linn., *in-vitro* antimicrobial screening, agar well diffusion method, Bezeta

**Developing Vocabulary Knowledge in the Upper Elementary Level  
English Language Proficiency Classroom**

Ni Ni Aung\*

**Abstract**

Vocabulary knowledge is not something that can ever be fully mastered; it is something that expands and deepens over the course of a lifetime. Instruction in vocabulary involves far more than looking up words in a dictionary and using the words in a sentence. Vocabulary is acquired incidentally through indirect exposure to words and intentionally through explicit instruction in specific words and word-learning strategies.

Key words: vocabulary acquisition, comprehensive approach,  
instructional activities, language competency

## **A Main Vegetable Supply Area in Shan State: Myinmathi Village Tract, Kalaw Township**

**Khin Maung Zaw<sup>1</sup> & Members of Aungban Fieldtrip<sup>2</sup>**

### **Abstract**

With urbanization and increasing incomes, the importance of the non-staple food such as fruits and vegetables is increased in daily food share. Sufficient consumption of them can help prevent some major diseases such as cancers. Therefore, it can be assumed that vegetable cultivation is also important enterprise. This paper intends to understand the vegetable supply system in Myanmar based on Myinmathi Village Tract, Kalaw Township, which is one of the main vegetable supply areas of Myanmar, as a case study. Structured questionnaire, interview and field observation methods are mainly conducted to get the primary data. Carrot, tomato, cabbage, cauliflower are main supply items of the study area, especially sent to Yangon City. By cultivating varieties of vegetables within a small plot is a way to solve the problem of market risk.

**Keywords:** Vegetable, Supply system, Food share, Market risk, Myinmathi Village

## **The Kakku Assembly of Pagodas**

Khin Lay Yi\*

### **Abstract**

The Kakku group of pagodas, situated at Kakku village, south of Taunggyi, in Southern Shan State, consists of over 2000 small pagodas. The mass assembly of pagodas in a single site is the unique significant nature of the Kakku group of pagodas. It is in the Paoh region of Shan State, the native place of the author. The pagodas, over 2000 in number, are found to be of excellent architectural fine art products complete with detailed mural touches of embossed portraitures. This paper makes a study of the inscriptions on a large bell, a composite/paraphernalia of the Buddhist pagoda, cast in 1793 AD, in order to trace the history of the assemblance of the Kakku pagodas. The artistic architectural masterpieces are presented in photo slides.

**Key words :** mass assembly of pagoda, fine art products, inscription

## Preliminary Ichthyological Surver at Lampi Island and Some Adjacent Islands, Myeik Archipelgo

Tint Swe<sup>1</sup>, San Tha Tun<sup>2</sup> and Tint Tun<sup>3</sup>

### Abstract

An ichthyological survey was conducted at the Kyun Pyar Gyi Island (Pine Tree Island), Nyaung Wee Island (Lampi Island), Kyun Tan She Island (Lampi island), Bo Cho Island, and Ko Phawt Island of Myeik Archipelago between North Lat. 9° 30' N-11° 30' N and Long. 97° 30' E – 98° 30' E from 12<sup>th</sup> to 24<sup>th</sup>, January 2008. Fish samples were collected by gill net (aperture 2.54 cm, Length 30 cm, width 1.5 m), beach seine (aperture 3.81 cm, length 100m, width 2.5 m), dip net and mosquito net (aperture 0.5 cm). Some fish samples were also obtained from fishing boats and fishermen. Some commercial fish and shrimp samples were also observed at Annawar Soe Co. Ltd. at War Kyun Island. A total of 42 fish species belongs to 22 Families were recorded from Lampi and its adjacent islands. The Family Oryziatidae and seven fish species such as (1) *Albula neoguinaica*, (2) *Ambassis interruptus*, (3) *Ambassis vachelli*, (4) *Atherinomorus endrachteusis*, (5) *Atherinomorus ogilbyi*, (6) *Oryzias sp.*, and (7) *Rhoniscus sp.* were identified as new record to Myanmar.

**Key words :** Ichthyological survey, Family Oryziatidae, Lampi island: National Marine Park.

## Conformal Mapping and Its Application

Htwe Myint Kyi\*

### Abstract

This paper is primarily concerned with conformal mapping and its application to fluid dynamics problems. We present that the conformal mapping transforms stream lines into stream lines. The same is true for the case of the source, doublets and vortices.

Key words : conformal mapping, source, doublets, vortices