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The US Africa Command: Threat for Sino-Africa Relations

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Since the last two decades, the Sino-African relations have been growing at a tremendous pace. Particularly, in the area of trade and finance, China is becoming the biggest partner in Africa fast replacing the United States and European states dominance in the continent. Currently, China seems the biggest benefactor of this relation because of its remarkable technological and industrial achievements. In relative terms, Africa is also benefiting from its relation with China, in comparative terms, than with other powers. Coupled with the change in international arena and the discovery of oil in different parts of Africa the Sino-Africa relation is attracting superpower attention on Africa. This is leading to rivalry between the U.S and China in Africa. On one hand, competition over African resources is a positive sign that marks the end of African exclusion from the international political economic system. On the other hand, however, the competition threatens the sovereignty of the African states in general terms. In particular one of the major threats, I argue, is the recently observed U.S foreign policy shift towards Africa that culminated in the establishment of the U.S.A. Unified Africa Combatant Command 'Plus' entity in February 2007. The 'plus' aspect of the command has the propensity to militarize or securitize the United States foreign policy towards Africa in all dimensions. This paper inquires; the nature and strategic threat the U.S Africa Command (AFRICOM) pose on the continuation of Sino-Africa relations. In addition, the author argues the 'whole government' approach (defense, development and diplomacy) the Command is taking and the strategic consideration of controlling 'ungoverned space' in guise of perverting and combating terrorism are designed to meddle in the African states foreign policy choices systematically and impede Chinese growing relation with African states. Hence,

African states needs to develop an able approach that ensures the continuation of the U.S – Africa relations without the threat of securitization and that approaches actors on both sides equally. Moreover, the African states option to select foreign developmental partner should be kept intact, especially with China because of multifaceted nature and size of the relation.

Urban Vulnerability to Poverty: Asmara’s Poor in Perspective

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As the number of urban residents in Eritrea rises, it is very likely to lead to an increase in the number of urban poor and vulnerable population thereby posing great challenges to urban planning and development. Poverty is generally associated with the deprivation of health, education, food, knowledge and many other things that make the difference between truly living and merely surviving. There is another universal aspect of poverty: vulnerability. Vulnerability has been defined as “the exposure to contingencies and stress, and difficulty coping with them”. The present study attempts to shed light on the myriad forms of urban poverty in Asmara. Based on interviews, observations, and content analysis the study sought to find out the biggest problems and risks faced by the urban poor (perception of the risks), how individuals deal with the identified problems (coping strategy-what is actually done by the poor in face of the specific problems), possible solutions and existing modes of self-help and mutual support.

The methodology applied in this study revealed four intertwined forms of vulnerability in Asmara: vulnerability to income failure, food insecurity, deteriorating health and social disintegration. A key finding of the study is that the widely used term “Vulnerable group” is not a concise category, because there are differences within all the groups studied. Vulnerabilities tend to be aspatial, i.e., not only confined to Asmara and affect different social groups

in other cities of the country. However, inside certain groups, differences do exist and it is not the social groups per se that is vulnerable but certain individual and households belonging to these groups.

The study has also proposed some recommendations regarding what the policy makers need to implement in order to ensure income generation opportunities; provision of balanced food assistance options and nutrition awareness; and development of credit cycle schemes.

**Towards a Material Science Approach for Cultural Heritage:
Requirements and Problems in the Eritrean Context**

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This paper explores the notion of a material science approach to the characterization and conservation of cultural heritage in an attempt to emphasize the thrust of scientific examinations in shedding light on Eritrea's past. In as much as providing considerations of practical issues in conservation and characterization of archaeological materials, the author seeks to explore venues of a wider application to address problems and requirements of the approach in the Eritrean context. Consequently, an evaluation of the past practice of cultural heritage in light of such an approach is furnished by outlining existing limitations and problems. Concomitant to a realistic development, the author hopes to contribute to stimulate interdisciplinary networks and analytical collaborations, both in local and international arenas for a better characterization and conservation of cultural heritages in Eritrea.

ስነጽሑፍ ትግርኛን ለውጥን አብ ኤርትራ (1941-1991)

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አብ ታሪኽ ኤርትራ፡ ካብ 1941 ክሳብ 1991 ዝነበረ ሓምሳ ዓመታት፡ አዝዩ ቅልጡፍን አዝዩ ዝዜፍን ለውጢ ዝተራእየሉ እዋን እዩ ነይሩ። ኤርትራ፡ ነቲ ናይ ፈለማ ዓሰርተ ዓመታት አብ ትሕቲ ምምሕዳር እንግሊዝ፣ ዳሕረዋይ ዓሰርተ ዓመታት አብ አዝዩ ንኡስ ርእሰ-ምምሕዳር ዘፍቀደ ፊደራላዊ ዝምድና ምስ ኢትዮጵያ፣ ነቲ ዝተረፈ ሳሳሳ ዓመታት ድማ አብ ትሕቲ ፍጹም መግዛእቲ ኢትዮጵያ እያ አሕሊፋቶ። እዚ ሓምሳ ዓመታት ብዘይካዚ፡ ቦቲ እናዓበዩ ዝኸደ ኤርትራዊ ሃገራውነት ዝተደፍአ፡ መወዳእታኡ'ውን ናብ ናጽነት ዘምረሐ ፖለቲካዊን ዕጥቃዊን ቃልሲ ዝተኸየደሉ እዋን'ውን እዩ ነይሩ። ብዘይካዚ፡ አብ ኤርትራ ብዝተፈላለዩ መልክዓት ዝንጸባረቕ ማሕበራዊ ለውጢ'ውን ተፈጠሩ እዩ። ሕብረተሰብ ክብርታቱ ዓቂቡ ዝሓሸ ናብራ ንኸጥምት ከምኡ'ውን አብቲ ዓቢይ ፖለቲካዊ ለውጢ ዝሕቁፍ፣ እቲ ዝነበረ ያታዊ አተሓሳስባን አገባብ ናብራን ዝሰረቱ አሳሪ ባህልን ልምድን ንክቐየር ስነጽሑፍ ናይ ዝእ ርእሱ ጽልዋ ገይሩ እዩ። ኰሎም'ቶም ንኤርትራዊ ሃገራውነት አርእስቲ ገይሮም ዝጸሓፉ ተመራመርቲ፡ አብ መብቆል፡ ከመይነትን ትሕዝቶን'ኳ ዝፈላለዩ እንተኹኑ፡ አብዚ ዓመታት ኤርትራዊ ሃገራውነት አዝዩ ዝዜፍ ዕብዩት ከም ዘርአዩ መዝገብምዎ እዮም። መብዛሕትአም እዘም ጸሓፍቲ፡ ንገለ ፖለቲካዊ ፍጻመታት ወይ'ውን መሰርሓት ከም ወሰንቲ ረጃሕቲ አብ ምዕባለ ኤርትራዊ ሃገራውነት ብምውሳድ፡ ታሪኻዊ ፖለቲካዊ ምዕባለታትን ኤርትራዊ ሃገራውነትን ንሓድሕዶም እናተመጋገቡ ከም ዝግበዩ ይምጡቱ።

እዚ መጽናዕታዊ ጽሑፍ'ዚ፡ ነቲ ዝዜፍ ፖለቲካዊ ለውጢ ምክንያት ዝኹን ኤርትራዊ ሃገራውነት፡ ብናይቲ እዋን ፍርያት ስነጽሑፍ'ውን ብዓሚቕኡ ከም ዝተጸልወ ብምርአይ፡ ስነጽሑፍ አብ ኤርትራ፡ ለውጢ አብ ምርግጋጽ፡ ወሳኒ ረጃሕ (መሳርሒ) ምንባሩ ዝምጡት እዩ። አብ ሓደ ሕብረተሰብ ዝኸሰት ለውጢ ብዙሕ መልክዓት ዘለዎን እንተኹን፡ እዚ መጽናዕታዊ ጽሑፍ ለውጢ ዝብሎ፡ ነቲ አብዚ ዝተጠቐሰ ግዜ አብ ዝተወሰነ ክፋል ሕብረተሰብ ኤርትራ ንዝተራእየ ፖለቲካዊን ማሕበራዊን ለውጢ ጥራይ እዩ። እዚ አብ ኤርትራ ዝተፈጥረ ለውጢ፡ ንምሉእ ሃገር ዝጸለወ ይኹን እምበር፡ እዚ መጽናዕታዊ ጽሑፍ፡ ንስነጽሑፍ ትግርኛን ናብቲ ብአኡ ብቐጥታ ዝተጸልወ ተዛራቢ ቋንቋ ትግርኛ ዝኹን ክፋል ሕብረተሰብ ኤርትራ ዘድሃበ እዩ። ስነጽሑፍ ትግርኛ ንፖለቲካዊን ማሕበራዊን ሕቶታት ናይቲ ሕብረተሰብ ብዝተፈላለዩ ዓይነታት አንጸባሪቕኞ እዩ። ቀንዲ መማገብቲ ነጥቢ ናይዚ መጽናዕታዊ ጽሑፍ'ዚ ከአ ንኹሉ'ቲ አብዚ ዝተጠቐሰ ሓምሳ ዓመት ዝፈረየ ስነጽሑፍ ትግርኛ - ዓንቀጽ፡ ልበወለድ፡ ግጥሚ፡ ድራማ፡ ደርፊ፡ ሓጺር ዛንታ - መበገሲ ዝገበረ ይኹን እምበር፡ አብነታት ንምቕራብን፡ ፍሉይ ፍጻመታት ንምጥቃስን ንኹሉ 'ቲ ስርሓት አይድህሰሱን እዩ። ስለዚ፡ ዝያዳ አብቶም ተሓቲምም ዝተነበቡ ስነጽሑፋት ጥራይ ዘተኮር እዩ።

**Perfecting Women's Struggle through Studies: Addressing the
Absence of Gender Studies in Eritrean Higher Education**

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Eritrean women's contribution in the struggle for national independence is an established fact; they represented a third of the Eritrean People's Liberation Front (EPLF) and 13% of its fighting forces. Women's participation in the national struggle has a two-sided benefit; it augmented EPLF's human capacity on one hand; on the other hand it demonstrated women's movement from the domestic sphere to the public sphere. Despite their acclaimed role in the national struggle, women's struggle against all forms of oppression hitherto demands more efforts to attain its desired goal. Much has been done during and after the struggle period to improve the position of women in Eritrea. However, there still remain some silences on the question of liberation of women. One major silence, which is the main concern of this paper, is the absence of gender studies in Tertiary Education in Eritrea.

This paper assesses the nature of liberation of women in Eritrea by situating the significance of gender studies at the center of the struggle of Eritrean women against all forms of oppression. What are the assumptions behind the absence of gender studies from the institutions of higher education in Eritrea? How can the positive stand of the Government of the State of Eritrea regarding women's rights and equality be reconciled with the exclusion of gender studies from higher education in the country? In an effort to briefly address these questions, the paper looks at the traditional position of women in Eritrea and the history of women's struggle in relation to the obtainability of gender studies.

The theme of the paper revolves around the importance of a locally based scholarly platform for researching and theorizing women's concerns. The term 'gender studies' is used to indicate a scholarly platform, in an institution of higher education, which is dedicated to the cause of women's liberation.

**Review of the Built Environment Contribution to the
Greenhouse Gas Emission and New Green Energy Devices for
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The built environment is a large contributor to the greenhouse gas emissions. The first step in tackling environmental impact and fuel cost reduction is the minimization of energy losses through introduction of new and more efficient energy conversion technologies. In this study, the potential application of Fuel cell micro-CHP and solar panels in a typical residential and office building is reviewed. A 1.5 kW_{el} fuel cell micro-CHP has been installed in an office building at CIBSE headquarters (HQ). The unit converts natural gas to electricity, using Solid Oxide Fuel Cell (SOFC) Stack. The installation and data from the operation of the system is discussed. The data shows that the heat recovered from the SOFC stack covers most of the domestic hot water requirement of the office building, requiring minimal top-up from the immersion heater. The thermal output of the SOFC micro-CHP depends on the flow return temperature of the heat recovery loop. Results show the maximum heat recovered is about 1000 W at the return temperature of 15 °C and 300 W at 45 °C which corresponds to an average combined efficiency of about 85%. The results clearly indicate that to maximise the heat recovery from the SOFC micro-CHP the return temperature should not exceed 45 °C. The micro-CHP was successfully integrated to the existing heat supply technology. Based on the initial performance, SOFC micro-CHPs could provide significant energy and cost savings when used appropriately in an office type building. Based on research study there is a huge potential for combining solar and micro-CHP systems.

Effect of Gum Arabic Coating on the Quality and Shelf Life of Tomato Fruits

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Tomato (*Solanum lycopersicum* L.) is an important food commodity from nutritional and commercial point of view and is one of the most widely consumed fresh vegetables in the world. However, freshly harvested tomato has shorter shelf life and marketability. Major losses in tomato quality and quantity occur between harvest and consumption. There is thus a need for the applications of new technologies to extend the shelf life of this commodity. The use of edible coatings appears to be a good alternative. The objective of the research was to investigate the effect of gum arabic coating on the shelf life and quality of tomato fruits during storage and to determine the response of different maturity stages with gum arabic coating on the shelf life and quality of tomato fruits during storage. Tomato fruits of cultivar sanmarzano coated with gum arabic (5-20% solution) were evaluated during 26 days of storage at $19\pm 2^{\circ}\text{C}$ and 45-50 RH. Gum arabic coating solutions at 5, 10, 15, 20% (w/v) concentrations, were tested for this physiological storage effect. The physiological weight loss of 15% and 20% of gum coated tomato fruits significantly ($p \leq 0.05$) reduced weight loss of the fruits of both at mature green and breaker maturity stages. Weight losses of uncoated and 5% fruits were significantly higher. In general, there was a gradual increase in total soluble solids (TSS) throughout the storage period. The TSS was significantly ($P < 0.05$) higher in control and 5% samples compared with the 20% coated. The skin colour change was significantly ($P < 0.05$) higher in control samples compared with the thick coated fruits of 20%. The colour change values were statistically insignificant between control and 5% gum arabic coated fruits. No significant changes in colour values of coated and uncoated fruits were observed at both the maturity stages during the storage period. The lowest

spoilage percentage was recorded by the Fruits of 10% followed by 5% and 15%. Organoleptic evaluation of coated fruits at the end of the storage period revealed significant differences in colour, taste, tenderness, appearance and overall acceptability. The 10% gum arabic coated fruits had the highest scores in most of parameters after 26 days of storage. Storage strategies to preserve its shelf life and sensorial characteristics have significance for growers, processors and sellers. It is concluded that 10% gum arabic coating effectively preserved different quality attributes of tomato fruits at even elevated storage temperatures by prolonging their shelf life.

Regional Security: Mapping Eritrea's National Security Approach in the Horn of Africa

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Any discussion on security interests - national, regional or international - must begin with what security means and what its conceptual frameworks are. Despite the existence of some confusions in defining it interdisciplinarily, according to a growing consensus, security interests are those concerned with the addressing or elimination of some kind of threat. With more geo-strategic sensitiveness, the GHOA (Greater Horn of Africa) has been challenged by various security threats. Putting inter-country definitions for a national security and its wide gaps in this region, the conclusions that have been made about comprehensive security approach are tricky. First, national and regional security in the Horn of Africa are largely defined and managed by linked networks of politico-military actors. Second, regional security actors are rarely prepared to clearly articulate their national interests at the regional level, strengthening the myth of "African solutions to African problems". Therefore, putting such scenario aside, this article is dedicated to sketching a security map whereby

Eritrea's security interest is at its center by exploring the existing rule of the security game, the main actors, and the subsequent political scenario guiding it. This article will support its argumentation using three case studies of 'Somalia intervention', 'the Nile hydro-politics' and 'the South Sudan's project' with its key security paradoxes.

**An Overview of the Activities of the Research and Information
Center on Eritrea (RICE) from 1979 - 1989**
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RICE was established just after the Eritrean People's Liberation Front undertook the strategic retreat from the then liberated areas which included most of the major cities and towns up to the periphery of Asmara to the strong hold of Sahel with Nakfa at the Centre.

The reason for its establishment was to tell the whole world that the strategic retreat was, in fact, the consolidation of the gains to deal a heavy blow to the enemy forces from a reliable position until final victory, and not the end of the liberation movement as the world thought.

The centre had its head office in Rome with the main chapters in London, New York, and contact persons in Brussels, the Scandinavian and Africa. RICE had prominent patrons like Basil Davidson, Gerard Chaliand, Gabriel Garcia Marques, Francois Houtart, Ruth First, Luciana Castellina, Lionel Cliffe, Lars Bondestam etc.

The main tasks of RICE were:

1. Publishing a monthly bulletin entitled Eritrea Information in English and French (From June 1979 up to December 1988)
The main contents of the bulletin included - editorial, commentary documents, eye witness, International Solidarity, interviews, announcements and other related topics.
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Another one-time publication was "Eritrea 50 years ago: An eye witness account by John Morley, a career officer of the British Colonial Services.

2. Publishing a quarterly research journal entitled "Eritrea Research"
3. Collection of Eritrea-related documents mainly from Italian archives. The main sources were: Istituto Italo-Africano, Biblioteca Nazionale, Biblioteca dei Deputati, Istituto Geografico altre mare etc.
4. Publishing and editing books like The Eritrean Case, Bibliography on Eritrea, Tigrigna-English and Tigrigna-English-Arabic dictionaries.
5. Organizing Conferences - The two important conferences organized by RICE were the one of 1983 in which two major topics - one on the progress made by RICE - Challenges and opportunities and the other one on Social Affairs. The other one was in 1988 in which 27 presentations were made on a variety of topics from experience of RICE to economics, industry, theories of development, Italian and British occupation, to reforestation and woodland management.
6. Conducting interviews with prominent personalities the most important of which were with the National Heroes Sheik Ibrahim Sultan and Ato Woldeab Woldemariam.

Lessons Unlearned from U.S. Policy on Eritrea:

The Genesis of a Pattern of Behavior that Still Ravages the Horn

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This paper intends to explore why the U.S. seems to be unconcerned, sometimes even dismissive of the rights of the Eritrean people, and the implications of this pattern of behavior for peace, stability and security in the Horn of Africa. A close analysis of declassified intra-U.S. Department of State memoranda

and other records focusing on the process that eventually led to the annexation of this former Italian and British colony reveal the beginning of a pattern of behavior spanning more than six decades characterized by a) ignorance of history, b) attempts to legitimize Ethiopia's actions and intentions against Eritrea and its people, no matter how outrageous, and c) unwillingness to take stock of the impact of flawed Washington policies on the Eritrean people.

Why Researchers are always at Least One Step Behind their Human Subjects

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This session will explore the inherent problem of research findings published in “yesterday’s papers, telling yesterday’s news”. In particular, studies in the social and behavioural sciences are prone to becoming outdated relatively quickly. Research participants, the human subjects, invariably alter their behaviour as they act on new awareness and knowledge generated during the process of their involvement, typically as respondents/interviewees. Why researchers ask questions on topics the respondents may or may not have thought about before; what is special about the topics that researchers focus on; how might the research findings reflect local realities? These are some of the key questions in respondents’ minds. By the time fieldwork is completed, the research participants had moved on to think of other things and to turn their knowledge into practice. The same cannot be said about the researchers who spend longer in analysis, write-up and publication. Yet, policy statements and/or recommendations are routinely put forward by researchers who assume that their research subjects remain where they left them. I shall present one example from my team’s field research in Eritrea. Other researchers are also invited to join this session, particularly if they have experiences to share from field research in the human, social

and behavioural sciences in Eritrea.

Assessing and Reducing the Electricity Consumption in Asmara
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Saving energy through energy efficiency improvements can cost less than generating, transmitting, and distributing energy from power plants, and provides multiple economic and environmental benefits.

This research explores electricity consumption in Asmara to identify areas of energy waste and to promote viable options for resource conservation. The research study will address pertinent background, assessment methods, results and analysis of energy surveys and data collected from Asmara end-users and electricity consumers, to conduct energy efficiency guides that can be used to reduce electricity consumption in Asmara.

The energy efficiency guides in this research describe the process of developing and implementing strategies, using real-world examples, for improving energy efficiency in local government operations as well as in the community. The study will use random samples to collect data about the consumption of electricity and calculate the average demand according to the number of hours and equipment used, and then data analysis will be done using computer simulation to find an optimum and efficient way to reduce power consumption.

The research will also provide recommendations for future energy conservation initiatives in Eritrea.

Reducing energy usage could save Eritrean taxpayers millions of dollars each year and play an important role in poverty reduction. Also it will significantly reduce fuel bills and reduce a country's carbon footprint and help slow the global warming trend.

Challenges in the Copyright Protection of Musical Works: Eritrean Context

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In the Eritrean legal system copyright is regulated by scanty provisions provided under Transitional Civil and Penal Codes of Eritrea. Even though these provisions were drafted in the mid twentieth century and don't offer laws that go in tandem with the current developments in copyright, they provide the principle and basic provisions that can be applied in the regulation of copyright. The Eritrean music industry is facing many copyright challenges as a result of the shortcomings in the law governing copyright, the low level of copyright awareness, the infringements that are being committed by the general public, individuals who sponsor music records, record studios, various government entities, online channels on the YouTube, the Cultural Affairs of the PFDJ as well as the artists themselves. The main problems that are addressed by this study concern ownership and transfer of ownership, especially in the songs that were produced during the armed struggle as well as those that are presented on national holidays, the publication of audio and video clips through the online channels, as well as the shortcomings and the unsatisfactory handling of cases by the High Court which has jurisdiction over copyright matters.

Eritrean Armed Struggle for Liberation's Archive as a Primary Source of Information: Its Nature and Accessibility

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The intention of this article is to give for interested groups of researchers or participants of the International Conference on Eritrean Studies, a general overview of the archival landscape in Eritrea, mainly about archives of the thirty years of Eritrean Armed Struggle for Liberation, 1961-1991. Archives of the

Eritrean armed struggle are not much known by many historians, researchers and writers, in particular about its availability and accessibility.

Partial archival documents of the armed struggle are housed in the Research and Documentation Center (RDC) and the rest are under its close supervision until official transfer takes place. As *de facto* national archives, some documents could be available abroad like photographs, clippings, manuscripts of individuals, and interviews etc. as part of university libraries' collection, but such documents do not give full coverage and/or represent true history of the period. Sources of information can either be primary or secondary and they can be found in a variety of formats. Archival documents are only one of the primary sources historical and social research should depend upon.

I believe that the occasion of the International Conference on Eritrean Studies, therefore, could be a profitable opportunity for publicizing Research and Documentation Centre's (RDC) archival holdings and the challenges researchers are likely to face when accessing information contained in archives in the custody of RDC or in any other archival institutions in Eritrea.

The Socio-Economic Survey of Eritrean Ethnic Groups (1982-2003): Sharing the Experience and Introducing the Content

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The meager literature available on ethnography of Eritrea falls within the category of knowledge, which 'invented' Africa, as Mudimbe would put it. No extensive ethnographic research has so far been done in the country. The few available sources are the product of colonial anthropologists who shouldered the double task of 'studying' and 'pacifying' the 'natives'- Alberto Pollera and S. F. Nadel represent this group. The works of travellers and explorers, who were the predecessors of the mentioned group,

represent principally similar accounts with slight difference – C. Rossini represents the later in the case of Eritrea. The works of both groups reflect the symptom of the era identified by Brantlinger as the period of the “merger of racist and evolutionary doctrines in Social Sciences.” This was the period between the abolition of Slave Trade and the beginning of formal colonialism, the period of exploration and ‘discovery’ and later on missionary works. Brantlinger locates the emergence of the ‘Myth of the Dark Continent’ in this period. As product of such period of time, the literature on Eritrean society is far from reflecting the reality on ground.

Aware of paucity and bias of the literature available, the Eritrean People’s Liberation Front (EPLF), which fought for the liberation the country, took an initiative to liberate the knowledge production process too. In 1982, the EPLF launched, a yet to be completed, ambitious project of ‘Socio-economic Survey of the Eritrean ethnic groups’. The survey was to be conducted by the EPLF fighters who had to carry guns and pens simultaneously, and adjust their survey sampling according to the dictates of the given war situation. This paper thus, aims to share the experience of the EPLF Public Administration Department’s research team, and introduce the result of the team’s research, which has compiled over 13,000 pages of semi-analyzed material, to the wider academic community. The paper shall touch upon the methodology followed, the scope and the final content of the socio-economic survey conducted in an extended period of seventeen years, i.e. first phase 1982-1991 and second phase 1996-2003.

The Philological Study of the Eritrean Manuscripts in Ge'ez: Methods and Practices

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There is still a considerable and largely unexplored amount of ge'ez manuscripts preserved in Eritrean libraries, particularly in churches and monasteries, and it is desirable that this documentation is made available to the scholarly attention, as it is being done for other areas. Yet, if the exploration, acquisition, and first scientific study of this material is challenging in itself, of no less importance are questions which still tend to remain in the background, but the importance of which can hardly be underestimated; among these, there are:

1. the cataloguing of the codices, a delicate task which must be done according to the standard and universally applied criteria, involving the description of each and every object in its material constitution and the analytical illustration of its literary contents;
2. the method of approach to the texts, particularly to their edition, which must be achieved following the principles of textual criticism, namely exploiting all the available witnesses of the literary works and reconstructing their mutual relations;
3. the typological analysis of the codex illuminations – if there are – in order to highlight the artistic 'schools' and personalities and to reconstruct the influences coming from abroad, mainly the 'Mediterranean' milieu.

Once these conditions are satisfied, the linguistic, historical, or anthropological use of the texts become possible, and the ge'ez manuscripts prove to be a priceless source for knowing the Eritrean civilization as a whole.

Abridgment of the Characteristics of Teachers in Elementary Schools in Eritrea

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This article is extracted from an extensive PhD dissertation conducted on initial teacher education (ITE) at national level in Eritrea in 2010. The research was conducted in twenty-seven sub-regions selected purposefully with the help of the leadership of the regional education offices of the Ministry of Education (MoE). The thirty-one sample schools were located in eighteen villages and eleven cities. All local languages of instruction were included except Bidawet (Hedareb) when there was only one school in 2010 using the language as a medium of instruction. The article attempts to expose the characteristics of teachers in elementary school from the perspective of the research participants at micro, meso and macro levels of the elementary school system. The interview participants included more than 200 teachers, school heads, Parent Teacher Associations (PTA) members, sub-regional education office leaders, regional education division leaders, Asmara Community College of Education (ACCE) educators and managers, former teacher education leaders, and MoE experts. Questionnaire participants involved about 590 elementary school students, teachers, and school heads from the 31 schools in all the six regions. Student teachers were also included in the latter category from the ACCE. The outcome of the research has facilitated in portraying the essential characteristics of elementary school teachers in mainly three professional phases. The outcome has also gone beyond just exposing the characteristics of elementary school teachers to what could be done to professionalize the characteristics of elementary school teachers in the country.

Seismic and Volcanic Hazards in Eritrea

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The dramatic landscape of Eritrea is driven by large tectonic forces that are breaking apart the African continent. Scientifically, Eritrea is of particular interest as three plate boundaries meet within its borders, where the final stages of continental breakup occur.

Volcanism and seismic activity are common at active plate boundaries and Eritrea is no exception. In 1921 a M5.8 earthquake badly damaged the city of Massawa. The Dubbi Volcano erupted in 1861 resulting in over 100 fatalities.

More recently, on the 12th of June 2011, Nabro volcano in the southern Red Sea region of Eritrea erupted with little warning. Ash plumes shut down regional air traffic and, together with lava flows, affected local populations (12,000 people were evacuated and there were 7 fatalities).

Despite these obvious impacts, little is known about the volcanic or seismic hazards in Eritrea. A recent collaboration between the Eritrea Institute of Technology and three UK universities (University of Bristol, Birkbeck, University of London, Cambridge University) aims to address this gap.

In 2011 UK and Eritrean scientists deployed an array of broadband seismometers across the country. From these data, together with historical data from religious transcripts dating back to 1400 and other regional deployments in the Horn of Africa, we have developed a catalogue of historical seismicity in Eritrea. The resulting hazard map indicates a band of elevated hazard on the plate boundaries and around Massawa, Gulf of Zula, and Bada.

Secondly, through a detailed study of geological, geophysical and satellite observations we have detailed the recent eruption of Nabro. This has led to an understanding of the volcano's

behaviour, which can be related to the 6 other unmonitored volcanoes in Eritrea.

In the future it is hoped that our collaboration will lead to the establishment of a permanent seismic network in the country. This is important for academic research (understanding rifting in East-Africa), humanitarian needs (e.g., monitoring and hazard assessment), as well as for large infrastructure projects such as geothermal power (e.g., Alid), mining (e.g., Potash) and other infrastructure (e.g., Massawa) within the active rift zones.

Imagining Asmara: Cyberspace and the City

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Asmara is often viewed by Europeans through the lens of an aesthetic nostalgia that casts the city as a time capsule where exemplars of the architectural style of Italian fascism are preserved. To Eritreans, however, Asmara means something very different. This paper explores representations of Asmara posted online by Eritreans and Eritreans in the Diaspora. These images and texts reveal the ways the city of Asmara serves as a terrain for exploring and constructing Eritrean futures. The city comes to stand in for Eritrea, notably an Eritrea of potential and emergence rather than one set in stone. Asmara is much more than her buildings. Online, the city is described in terms of a dynamic Eritrean culture, the construction of Eritrean cosmopolitanism, and the possibilities of new social formations and new kinds of belonging. The ambiguities of location that are present in the Diaspora and in cyberspace contribute to the construction of Asmara as a symbol of Eritrea and as a space of civic imaginary where possible Eritrean futures might be built.

Post-Conflict Political Relations between Ethiopia and Eritrea

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The Post-conflict Ethio-Eritrea bilateral relations have fifteen years involving rivalry based on increasing divergence in interest on bilateral, regional and global issues. Long pending border disputes, territorial claims and counter-claims, Ethiopia's continuous occupation and incursion to Eritrean Sovereign territories, assistance to opposition parties of one another, proxy engagements are some major setbacks in the Ethio-Eritrean relations among others. The result has already become a human tragedy of higher proportion. The fog of war has been escalating and deescalating and yet not avoided. The pre-border war robust shape of friendship and engagement cannot be farther placed from the realities on the ground.

The objective of this research paper therefore will be to examine and critically analyze the broad contours of Ethio-Eritrea relations in the last fifteen years and search the areas on which both countries can work together for mutual interests. It would also try to put forward the rationale for a robust and constructive engagement needed, by putting light on the already existing convergences and divergences.

Asmara – ‘The Frozen City’: A Photographic Presentation

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Asmara, capital of the State of Eritrea, remains a living museum of modern architecture and is a wonderful visual timepiece. The city is considered to be an impressive example of European urban construction of the 20th century. To this day, the influence of the former colonial power of Italy on the architecture of the city from the early 20th century to the 1940's remains visible. Many of the

buildings, erected in the futuristic, expressionistic or rationalistic style have been preserved and dominate the cityscape of Asmara. The architecture of this period does not fit neatly into stylistic categories. In Asmara you find avant-garde buildings next to reactionary architectural elements, sometimes a symbiosis of both. Perhaps the greatest surprise is that the city remained virtually undamaged throughout the 30 years of Ethiopian occupation, which devastated much of the country and only ended in 1991. 'Frozen in time', destructive regeneration and modernisation was never allowed to occur in Asmara.

The value of the modernist architecture is now seen officially and Asmara might therefore gain the status of a World Heritage Site. In particular, architectural projects in Asmara dating back to the late 1930's and early 1940's are the focal point of my photographic work. These include private, public and industrial buildings, which I photographed over the course of several years and which I staged incorporating their urban surroundings. Through these photographs, the atmosphere of Asmara is expressed in a unique way.

A Year after the Beginning of the Khartoum Process: Impact and Critical Analysis on the Action against THB

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According to IOM's Missing Migrants Project, from year 2012 to year 2104 there was a 334 % increase of migrant deaths in the Mediterranean from the past year's figures.

The risks that migrants (smuggled or trafficked) and refugees face in their attempt to reach Europe are clear. The majority of them have been reported to be victims of loss of life due to exposure to harsh conditions, being forced to flee persecution, conflicts and vulnerable situations, as well as physical and sexual abuses and human rights violations.

The “Khartoum process” was launched to foster dialogue on addressing the root causes of irregular migration in an effort to avoid further loss of migrant lives at sea; the initiative brings together countries of origin, transit and destination along the migratory routes from the Horn of Africa to Europe.

The expected results were (and still continue to be) to establish a dialogue for enhancing cooperation, while identifying and implementing concrete projects to address trafficking in human beings and the smuggling of migrants. In doing this, the States involved in the Khartoum process are working to: (1) create a framework for policy and dialogue; (2) share knowledge and experiences to strengthen cooperation with the support of international organizations like IOM, UNHCR, and UNODC; (3) seek funding opportunities and facilitate resource mobilization to support concrete projects.

The aim of the paper is (a) to verify how many goals were achieved in the first year of its duration, focusing on tackling trafficking in human beings and on the development of regional coordination mechanism on migration management; (b) to focus on the relation between the implementation of the Process and the development of legal migration channels, giving to the migrants more opportunities to enter the EU instead to entrust smugglers and traffickers.

After the International Criminal Court in Africa

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The International Criminal Court is today in crisis. Its exclusive focus on Africa has backfired, as high profile cases have collapsed, states flout arrest warrants, suspects remain at large, convictions are few, and sentences unsatisfactory. The Court is accused of political bias and neo-colonialism. South Africa seems on the

brink of withdrawing from the Rome Statute altogether, with much of the African Union threatening to follow.

While the ICC itself may be in dire straits, international criminal justice seems ascendant. The trial of Hissene Habré is lauded as a test case for trying African defendants in African courts. ICC law has been nationalized and special divisions of national courts have been established, celebrated as a victory for positive complementarity. The AU is working towards its own African Criminal Court, and calls are heard for trials as part of the peace process in South Sudan and elsewhere. Even while prominent African leaders such as Thabo Mbeki warn categorically against criminal trials for dealing with mass violence, trials seem now to be taken for granted, as a natural and necessary part of transitional justice on the continent.

What is the future of international criminal law in Africa? Will the ICC find a way to re-establish its relevance? If an African Criminal Court emerges, will it be afflicted by the same political dilemmas as the ICC? Will the trial of Habré signal a new status quo, with human rights groups, donors, and international agencies contracting national courts to carry out trials of politically selected individuals? Or will a new emphasis on sovereignty and the mistrust of international criminal law among rising powers in Africa and globally mean the slow end to two decades of international criminal prosecutions? This paper seeks to investigate these questions, with an eye to interrogating the political and ethical dimensions of different possible futures of international law in Africa.

The Restoration of KidaneMehret Church in Senafe

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The church of KidaneMehret lies at Senafe, some two kilometers south of the city, on a hill dominating the plain of Matara.

In 2005, the church was in a bad condition: the roof had collapsed; the interior was filled with mud, and a corner was destroyed. After preliminary architectural studies, it was decided to set up a program of restoration of the church, according to traditional building materials and techniques.

Under the patronage of the National Museum of Eritrea, it was decided to raise funds among international donors, UNESCO, World Monuments Fund, etc.

During two dry seasons, the general masonry was consolidated and walls were repaired. All of the woodwork was renewed: doors, window frames, coffer ceilings etc. according to traditional joinery. A new roof covered the central part of the *maqdas*.

The work was completed in 2007 and a book was published on the same year both in Tigrinya/German and French.

The KidaneMehret church is not an isolated church. Some similar churches or monasteries are to be found in northern Tigray, such as Enda Maryam in Bihat or EndaTsakan in Baraknaha. They all display similar organization (QeneMahlet, Qeddest and Maqdas), and they use similar building techniques (rubble stone masonry with longitudinal and cross pieces).

Due to the lack of inscriptions, dedications and paintings, it seems difficult to date the construction of the church. It is here only suggested 17°-18° century.

Hagiography in Eritrea: State of the Art

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Hagiography is one of the most widespread genres of Eritrean Christian and liturgical literature and it is attested in several hundred manuscripts still preserved in the monasteries and churches of the Country. The lives of Eritrean holy men and women, portrayed in these texts, have been only partially edited and studied by scholars in the past. The study of hagiographic

texts, on the one hand, aims at reconstructing the historicity of the saints and, on the other hand, it investigates the dynamics and the modalities of the creation of their veneration, according to their historical development. The extreme richness of thematic and problems that hagiographic texts offer is particularly helpful to the historians for reconstructing several aspects of the past and present society. For this reason hagiography contributes to the knowledge of the past and present Eritrean history and mentality of the people who produced them.

The paper aims at: (1) outlining an historiographical overview of the researches made so far on Eritrean hagiography; this state of art will be used as starting point for further researches; (2) investigating the local hagiographic production, and particularly the attestation of ancient and recent cults in Eritrea in order to understand whether there are devotional and liturgical differences between them, but also if the persistence of ancient venerations is related to specific communities; (3) highlighting the sources, the methodology and the future prospects of the hagiographic research in Eritrea and the importance of the scholarly investigation in Eritrean monasteries and churches.

Narratives of Necessity

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Evolving structures of the Internet have offered radical new platforms and possibilities for storytelling, journalism and political struggle around the world. This has been an especially salient development in parts of the non-Western world, where traditional narratives crafted by western histories and media have been challenged and, in some cases, upended, by local voices. Still, taken as a whole, the World Wide Web privileges narratives focused on the west, and those regions of geopolitical interest to the west. When reportage and cultural expression from other

spaces do penetrate the awareness of broader audiences, they often do so sporadically, without proper context, and not for long. My paper examines various approaches and strategies for amplifying non-Western web content in new media—a new media which continues, by and large, to reflect the power dynamics of the old.

**Subjecthood: On the Legal Status of the Eritrean Population
during the Italian Colonialism**

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Referring to the concept of “institutional segregation” (Mahmood Mamdani) my paper investigates the way the Italian colonizers used the citizenship issue in order to impose their rule in colonial Eritrea separating the colonizers from the colonized.

The Italian colonial rule was based on a racial discrimination of the native population. Recent research have shown how the construction of racial hierarchies didn't begin during the Fascist era, as has been long asserted, but continued along at a constant speed since as early as the conquest of the African territories in the 1880s.

This separation arose from the hegemonic assumption that the European white population stood on a much higher level of civilization than the 'non-white' population. This assumption, moreover, founded the civilizing mission of the colonial powers, which lent its name to the colonial conquest of non-European territories and discriminatory rule of the natives.

My paper will pursue a set of questions: how did the “institutional segregation” work in the colony? Which cultural topoi stood behind the legal discourse concerning the colonial citizenship? Bearing in mind that the Italian colonial rule put the native population in a specific legal status called “*sudditanza coloniale*”, which substantially differentiated from the metropolitan citizenship of the Italian colonizers, my paper investigates the

contents and limits of the “*sudditanza coloniale*” juxtaposed to the metropolitan citizenship. Which legal, social and material effects did this legal separation bring about the Eritreans?

The paper will consider the citizenship issue in colonial Eritrea within the broader context of European colonialism in Africa. Based on an extended amount of sources gathered during my research stay in Asmara in September 2012 the paper will give a particular importance to the experiences of the colonial population and its perception of the citizenship issue.

**Violence, Bordering on Epic, in the – Colonial, Pre and/or Post –
Eritrean Literary Space**

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This paper historically surveys and considers a variety of major literary works from Eritrea: its oldest – inscribed on an ancient stele in Belew Kelew; traditional oral poetry (“Negusse, Negusse”); contemporary poetry; (e.g. Isayas Tsegai, Fessahazion Michael, Solomon Drar, Mussa Mohammed Adem, Mohammed Osman Kajerai); and prose (e.g. Alemseged Tesfai, Haregu Keleta). Their depiction of the violence against a place and a nation as if it did not and could not exist forms a kind of incomplete yet unending and spontaneously forming epic if not in form at least in spirit.

**Conserving the Past: From Italian East Africa to Post-
Independence Somalia and Eritrea**

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The paper examines the legacies of Italian colonial policies in Eritrea and Somalia with regard to historical and cultural preservation, and explores how ideas about cultural heritage have

changed since independence. The Italian Fascist administration in Somalia (1923–1941) sought to assemble historical artifacts and to collect oral traditions as part of its campaign to promote the idea of 'la Grande Somalia'. The opening in 1934 of the Garesa Museum in Mogadishu as a showcase for Italy's 'civilizing mission' found a parallel in Italian plans to transform Asmara into 'la piccola Roma' and Eritrea into a model colony. While such endeavours clearly reveal the rulers' intentions of using history to legitimize the Fascist project in northeast Africa, these imperial endeavours left behind a series of 'living museums' and historical records which can serve modern scholars in reconstructing the past. How have independent governments dealt with this ambivalent cultural and historical legacy? Should contemporary cultural heritage include the artifacts and histories preserved or constructed during the colonial era? The paper hopes to encourage discussion and debate on the role of culture in the 'way forward.'

**State Building in Eritrea and South Sudan: Institutional
achievements and Challenges**

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The paper addresses state building in post-conflict Eritrea and South Sudan. It critically analyzes institutional achievements and challenges of both States. It argues that Eritrea and South Sudan states building have been marred by institutional achievements and challenges. Such achievements in case of Eritrea includes but not limited to setting up of functional institutional structures in legislature, executive and judiciary. It also includes efforts of forging common identity and unity within the Eritrean ethnicities. The conscious on-going nation building within nine ethnic groups could explain the cohesion and peaceful coexistence

amongst the Eritrean society. Moreover, the Eritrean president remained as a symbol of national unity within various locales of Eritrean State. Despite the glaring institutional achievements, Eritrea has stuck in the efforts of State building. Indicators of failure included repression on the freedom of speech and human rights violation. Corruption has tainted public service with little or no reports on budgets and government expenditures. Eritrea's image in the region and international level has been smeared, with her suspension in IGAD, isolation in African Union and United Nations. Besides, the State has remained with People's Front for Democracy and Justice (PFDJ) one party system with no presidential elections since independence in 1993.

On the other hand, the paper argues South Sudan state building as ponied with prospects and challenges alike. Prospects stretch with the patched-up institutions in Executive, Assemblies and Judiciary in a unitary decentralized system. However, the challenges include lack of crafted national identity and cohesion within various ethnicities. The ruling party, Sudan Peoples Liberation Movement (SPLM) failed to promote internal democratization. Thus, contradictions within the SPLM boiled, exploded and grabbed by political elites who set the ethnicities of Dinka and Nuer on each other's throat, leading to 15th December 2013 political and ethnic violence. Corruption thrived in nascent State with disappearance of USD 4 billion from the government coffers. Moreover, lack of capacity to manage a modern State explained the on-going hurdles of South Sudanese State building and consolidation.

The paper used elite interviews and secondary sources for both countries in tapping the institutional achievements and challenges. It combines processing tracing, case study and comparative methods to contextualize and validate causal chains and causal processes. Furthermore, the paper constructs the concept of state building and theorizes institutional achievements and challenges using neo-liberalism. Finally, it draws conclusion and recommends direction of future research.

Struggling to Find a Fence: A Search for the Middle Ground in Eritrean Scholarship

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Implicit in any discussion concerning ‘The Way Forward’ in Eritrean studies is a need to address the historic and current challenges faced by qualitative researchers working on the country and surrounding regions. From data collection to data analysis, the polarised context within which academics operate complicates the ability to produce theoretically and empirically rigorous work. The research environment and the field of reception for new ideas and outputs, from publications to presentations, impacts upon the production of knowledge in ways that demand of us as scholars to undertake continual reflection and debate. Normative questions emerge concerning how one *ought* to present the data, and about what role academia *should* play in particular contexts and when discussing particular themes. In the context of research on Eritrea, establishing answers to these questions is an ongoing and at times fraught process. It is also, at times, an incredibly personal process, which pits one person’s ideas about responsible and ethical scholarship against the multitude of other understandings that exist on this theme. This presentation draws on my experiences as a new arrival attempting to produce balanced analyses in the field of Eritrean Studies, and whether this goal indeed seems possible.

Mulhuli-Amo: Geochronological Setting, Paleoenvironmental Reconstruction and Paleoanthropological Findings of a One Million Year old Eritrean Site in the Danakil Depression.

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The Pleistocene succession of the Dandiero Basin (Eritrean rift margin) represents an outstanding and continuous record of the main environmental changes that occurred in East Africa during the early Middle Pleistocene time span.

Since 2010, the survey of the Mulhuli-Amo fossiliferous area, located about 5 km south of the Aalat section, has led to the discovery of human remains associated to widespread Oldowan and Acheulean lithic tools. The Mulhuli-Amo sedimentary succession is nearly 15 m-thick and consists of three main intervals. The lower interval (ca. 5 m) is made of a sandy Gilbert-type delta deposit and is of particular interest given that, at its base, we have discovered both fossil remains and stone tools. On the base of detailed, basin-scale stratigraphic correlations, the human fossil-bearing levels of Mulhuli-Amo are considered to correspond to the fossiliferous horizon of the Aalat section.

The Mulhuli-Amo site covers a 630m² area and has been the object of systematic surveys and surface documentation as well as,

since 2014, stratigraphic analyses. It has, to this day, brought to the discovery of 13 human fossil remains (a tooth and different cranial fragments) pertaining to, supposedly, a minimum of three different individuals.

These remains include: the crown of permanent lower molar from an immature individual; an isolated frontal fragment that has a thick torus; as well as eight parietal fragments and a temporal fragment from, presumably, a single individual, perhaps a young adult. Six of these eight parietal fragments articulate and constitute an almost complete left parietal bone that resembles, in both structure and architecture the UA 31 cranium from the nearby Uadi Aalad site.

The recent discovery of two ulterior cranial fragments (a portion of a sphenoid wing and a frontal/parietal fragment) once again confirms the great potential of this area in filling the lacuna in the African human fossil record at approximately 1 Ma.

**The Rural, Pastoral and Nomadic Livelihood in General and
about the Livelihood of Women in the Coastal Area of the
Southern Red Sea in Particular**

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Eritrea has a coast of about 1000 kilometres along the Red Sea with the most potential productive fishing grounds. Regionally, the Afar that belong to the Cushitic linguistic group live in Eritrea, Ethiopia, Djibouti and Somalia. They are predominantly pastoral nomads, but many of them also practice fishing and commerce. My paper will focus on those living along the Red Sea coast as fishermen, using traditional fishing methods in general, and the collection of sea shells locally called *Hirka* (Operculum) by Afar women in particular. Afar Women collect *Hirka* and sell it to various markets in the neighbouring countries where it is processed for making perfume.

The purpose of the paper is to inform my reader on how Afar women collect *Hirka*. The economic impact of the *Hirka* on Afar women is significant since the activity by tradition is carried only by them. There are four important reasons why the practice is done by women that will be mentioned and how it is collected. Therefore, this paper will examine the collection and processing of these shells, the domestic and foreign markets, and the socialization process in collecting seashells. I argue that *Hirka* collection is one of the most prominent activities among Afar women, and it is socially accepted, economically sustainable, and environmentally sound.

Rock Arts Documentation and Conservation
In the Central Highlands of Eritrea
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The Central Highlands of Eritrea reveal potential archaeological records, including early tool technologies and rock arts belonging to prehistoric human beings. The most important sites are rock shelters and caves that had been used as a dwelling place by hunter gatherers as well as by pastoralist societies. These heritage sites embrace layers of human history, like material remains embedded in the soil and art work images depicted on the surfaces of the rock shelters and caves. These treasure houses convey today valuable and adequate information on the life style of hunter gatherers and pastoral societies and the diversity of animal species and environmental resources of the past. Rock arts are like museums that display human consciousness to the environment and their ability to reflect them on the rock surface through artistic expression. However rock arts are fragile and vulnerable to natural and human agents and their preservation is still neglected. Therefore, these irreplaceable relics currently need urgent documentation and conservation works to preserve them for the present and future societies before they are completely lost.

Thus, the aim of this paper is to study the typology of the rock art work, assess their state of conservation and the threats that endanger them. The study focuses primarily on rock arts identified in the central highlands. The study is based on site survey accomplished by an interpretative, comparative and descriptive analyses work of the heritage sites.

**The Stranger's Notebook: Modes of Artistic Engagement beyond
Fixed Categories**

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In 2014, 3,200 lives were reported lost in the Mediterranean Sea, a number of them Eritreans heading to Italy. Their perilous journey, not without historical precedent, left no written documents, no notes of a wayfarer, no way for the living to account for the last hours of the departed. The result has been dominant narratives that have absconded these experiences and become predictably reductive.

This study draws from a 12-month journey by road from Lagos, Nigeria west, and north to Morocco and then east to France, Germany, the Netherlands and Italy in 2014. It further draws from three-month research in the archives and libraries of Italy which brought to surface records of Italian migration to its colonies and the new world; images of early Italian settlers in Libya and illustrations of the sinking of SS Utopia, a ship that carried mostly Italian immigrants headed to the United States in 1891, as well as that of a Sicilian woman crossing the Alps on foot with her children.

This study will address the theatre of the so called refugee crisis in Europe. It properly situates Eritrea's mobility and migration within the context of supra-national histories. The result is an emphasis on the interplay between external elements deeply implicated within the forces shaping Eritrea's modernity and

migration as a constitutive feature of modernity itself. The project articulates how the universality of the economic factors producing Eritrean migration can be examined through art projects that inhabit and rethink these histories critically. The project concludes that the tradition of representing political struggle within Eritrean art can be expanded as an effective instrument of social struggle to engage with these contemporary experiences of migration.

**Uncritical African Studies and the Continuities of Colonial
Discourse**

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When in July 2015, I visited the European Conference on African Studies in Paris, I was surprised by the actual numbers of Europeans, presenting their research on different African societies. More than being committed to the challenges that the different societies face, the space of the conference with hundreds and hundreds of panels appeared as a platform of swapping business cards and creating bigger and fruitful networks. The question of the power relations inside representation and scholarly work was not posed. Researching the African subject in a one way, hierarchical relationship and the authoritative condition that this implies, remained untroubled. The setting of the conference recalled the discussion on methodology and epistemology, provoking the urge to create an academic space in which the perceivable but intangible, and most notably historical violence could be verbalized. This paper asks the question of, whether it is possible to portray and suspend the neo-colonial features of uncritical African Studies through a collectively compiled South-South approach. To become a voice that shatters normalized and dominant epistemologies, in other words, to turn the relation of African people treated as empirical data and Europeans theorizing

them upside down, through disrupting the epistemology that makes this relation possible. But this requires a joint initiative that will create an open debate on the continuities of colonial discourse within academic research on the African subject. In this paper, I would like to address these continuities and discuss possible ways of confronting them.

The Buia Project: A Summary of Two Decades of Geology and Vertebrate Paleontology in the Early Pleistocene of Eritrea

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Started in late 1994 as research focused mainly on geological survey and regional geology, thanks to a collaboration between the Asmara Department of Mines (Eritrea) and the University of Florence (Italy), the Buia Project soon allowed the recovery of abundant Early Pleistocene vertebrates associated to archaeological artifacts in an area located about 20 km south of the village of Buia (Northern Danakil Depression). In late 1995, a human cranium and other dental and post-cranial remains were retrieved in the

Wadi Aalad area, in fluvio-lacustrine deposits dated through different approaches at the Jaramillo Subchron (C1r.1n; approximately 1.0 Ma). Exactly 15 years later, other human remains were found at Mulhuli Amo, a different locality chronologically equivalent to Wadi Aalad. Stratigraphic investigations highlight that the *Homo*-bearing succession was deposited under extremely high accumulation rates (160 m over 210 kyrs), providing insights to understand climate variations occurred in the Lower-Middle Pleistocene transition in East Africa. Field work carried out in the last 20 years has led to the identification of three taxa of fish (*Clarias* sp., cichlids, barbine minnows), four reptiles (*Crocodylus niloticus*, *Pelusios* cf. *sinuatus*, *Varanus niloticus*, *Python* gr. *sebae*), three birds (*Anhinga* sp., Rallidae indet., *Burhinus* sp.), and 20 mammals (worth mentioning are: *Theropithecus* cf. *osvaldi*, *Elephas recki*, *Ceratotherium simum*, *Equus* cf. *grevyi*, *Hippopotamus gorgops*, *Kolpochoerus olduvaiensis*, *Kolpochoerus majus*, *Metridichoerus modestus*, *Bos buiaensis*, *Tragelaphus* cf. *spekei*, *Kobus* cf. *ellipsiprymnus* and cf. *Thryonomys* sp.). For taphonomic reasons, small vertebrates are underrepresented and so far amphibians are still missing despite the fact that most likely they were originally present in the fluvial and fluvio-deltaic environment that is documented by the whole fauna and sedimentological proxies. Current research is aimed at reconstructing trophic chains and palaeoecological scenarios through stable isotope analyses.

Asmara: Decentering Modernist History

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Architecture in the twentieth century was dominated by the notion of modernism; its rise, its global dissemination, its conceptual and material apogee, and its demise or reconstitution. Modernity was a central facet of European colonialism. Often

framed benevolently in the guise of progress or modernisation, modernity became a justification for the exploitative processes that motivated colonialism and became explicitly manifest through the built environment. Contemporaneous modernisation theories equated modernisation with westernisation and presupposed an increasingly homogenised and globalised world founded broadly on western values. Consequently, modernist historiography and the recording of the myriad experiences of modernity globally, have been shaped by a westerncentric perspective, magnifying western ideas and architectural types at the expense of ‘non-western’ experiences.

Such partial interpretations of historical encounters are seen as increasingly inconsistent with global experiences and challenges. They also have a detrimental effect on the way we engage with, and understand, built environments globally. This problem manifests itself variously, from the writing of history to the creation of institutions charged with researching history or protecting historical artefacts. Nowhere is this perhaps more explicit than UNESCO’s World Heritage List – an inventory that could be seen as an international catalogue of cultural prejudice. Italy, France and Spain, for example, have more sites than the whole of Africa.

Eritrea’s current application to UNESCO for Asmara’s inclusion on the World Heritage List for its outstanding modernist architecture and urban planning and its exceptional testimony of the universal aspiration for and attainment of national self-determination goes beyond merely pursuing international recognition for its cultural assets. Viewed in a wider context, Asmara’s UNESCO application – as a modernist site in Africa – challenges some of the fundamental principles underpinning the heritage industry and calls for a decentering of modernist history to more fairly reflect and better understand global encounters with modernity.

**Beyene Haile's *Is He Mad?*
A Critical Study of its Narrative Style**

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Right from the time of its publication in 1964, Beyene Haile's novel *Is He Mad?* has puzzled the readers to no end. It appeared when the Tigrinya novel was heavily implicated in the revolutionary impulse of the times, but Beyene chose to go against the grain and disregarded the conventional realistic narratives of his contemporaries and their professed engagement with the social and political issues of the times. And yet he pronounced that artists too can initiate revolutions in their own style, which was perceived a strange way to demonstrate his affinity with the spirit of the times. To make his point, he put an artist at the centre of his novel and unfolded his life story through multiple narrators, which by the then Eritrean standards was equally revolutionary. My essay aims at analysing the novel's narrative structure in detail to show how it works in the novel and also assessing if it really achieves what Haile had in sight. One thing is plain though that Haile understood fully well that the technique of narrative management is crucial for developing and exploring the subject of an artistic composition and worked consciously on it in his novel with all the skill at his command, which makes him truly the first Eritrean modernist novelist.

**Mummified Baboons Corroborate and Clarify Ancient Red Sea
Trade Routes**

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The tandem origins of maritime trade and international diplomacy have roots in the Red Sea region. Graphic and epigraphic accounts of this trade often provide specific place names, or toponyms, with unambiguous geographic locations. Yet the location of one crucial state, Punt (or *Pwnt*), remains uncertain. Punt was a major emporium of gold, electrum, and biological materials such as myrrh, ebony, ivory, short-horned cattle, leopards, and baboons (*Papio hamadryas*). The importance of these materials is reflected in the 1200-year duration of trade between Ancient Egypt and Punt (Vth-XXth Dynasties; ca. 2458-1163 BC). The recovery of mummified baboons from several New Kingdom tombs, which was a period of thriving trade with Punt, raises the possibility of using stable isotope analysis to source their provenience. Here we report the oxygen and strontium stable isotope composition of two *P. hamadryas* mummies from XXth Dynasty tombs. We also analyzed the hair and bone of modern baboons in 106 habitats spanning five hypothesized locations of Punt: (1) Eritrea-Ethiopia; (2) Mozambique; (3) Somalia; (4) western Uganda; and, (5) Yemen. Isoscapes based on kriging interpolation of hair keratin $\delta^{18}\text{O}$ values and bioapatite $^{86}\text{Sr}/^{88}\text{Sr}$ ratios were produced and an index of similarity was calculated based on the geometric mean of the two kriged maps. Our results reveal a high likelihood match with eastern Somalia and the Eritrea-Ethiopia corridor, suggesting that this region was the source of *Papio hamadryas* baboons exported to Ancient Egypt.

Comparative Study on Prevalence and Complications of Diabetes Mellitus in Eritrea

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The prevalence of Diabetes Mellitus (DM) and its complications are increasing globally, and Eritrea is no exception. In addition to the already existing communicable diseases, DM is becoming one of the most prevailing non-communicable diseases in creating complications, demanding resources for prevention and treatment of these complications in Eritrea. This study aimed to contribute in prevention of DM by describing the ever - increasing prevalence of DM and its complications alarming as a major threatening signal for the economies and burden to health care system in Eritrea in comparison to East African countries. Based on literature review, Eritrea and East African countries were compared from 2003 – 2015 on prevalence of DM and its complications.

Based on surveys conducted in Eritrea in 2004 and 2010, the prevalence of DM was 2.3 and 4.7 percent, respectively. In Eritrea the prevalence of DM was relatively high (4.7%) as compared to Zambia (2.7 %), but closer to that of Malawi (5.6%), and Kenya (5.3%), whereas very low from that of Tanzania (9.1%). The prevalence of Hypertension was higher in Tanzania (57.5%) and Eritrea (37%) as compared to that of Uganda (25.6%), and Kenya (7% and 22%), respectively. One of the studies in Eritrea documented the prevalence of Neuropathy as 35.5%. The prevalence of Retinopathy was recorded as 33.8% in Uganda. Diabetic foot ulcer was recorded with the highest prevalence of 53.9 percent in Uganda as compared to that of Tanzania (3.2%). Nephropathy was documented as the highest with a prevalence of 80.5 percent in Tanzania as compared to that of Kenya (25%). In all the reviewed studies the prevalence of erectile dysfunction was not recorded.

The review concludes that DM and its complications are increasing in Eritrea as in other East African countries. The review recommends a comprehensive study to be done on DM complications, and its burden to health care system related to direct and indirect cost that it imposes; wide-ranging health promotion interventions and prevention measures of complications should be enforced; policies, strategies, protocols and guidelines focusing in supporting for the prevention of DM and minimization of prevailing complications should be developed.

**Women Related Customs in Təgrəñña Societies:
A Contribution to Eritrean Customary Law**
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The Təgrəñña speaking people were, despite a general impression of homogeneity, composed of numerous subgroups with their own socio-cultural traditions. Usually those groups defined themselves through common descent such as the 'Agamä of eastern Təgray, the Wägğärat of south-eastern Təgray or the Şän'adäglä and Mārätta of Akkälä Guzay or the Ḥamasenay in Ḥamasen; and in some cases also as a political confederacy uniting different groups such as the Şaw'attä Ansäba. Other people became Təgrəñña through assimilation processes several centuries ago; for instance, the Agäw settlers in Säraye, the Adkämä Məlga'.

Originally transmitted orally, a codified collection of customary regulations of Təgrəñña speaking people were elaborated by their societies of Ḥamasen, Akkälä Guzzay and Säraye on the highland plateau of nowadays Eritrea. Those collections represent a valuable source for the country's socio-cultural history. Unlike some relevant domestic works, this contribution does not aim to identify linkages to transform traditional standards to contemporary social settings. Rather, this scholarly paper takes a

closer look on the rich cultural heritage itself from a pure historical legal- and social points of view.

After introducing the major collections in their respective origins and context, selected aspects on the status of women in the peoples' social life will be illustrated based on the normative provisions.

Swedish Mission Obituaries as Possible Sources for Eritrean Biographies

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I have noted, with interest, that Swedish mission documents on mission work in Eritrea, contain obituaries on Eritrean co-workers. Among these there are elders, teachers, pastors, dressers and others. The obituaries are the most comprehensive sources for biographical data. But I have also discovered that letters by individual Eritreans to missionaries or to the Mother mission organization in Sweden contain personal biographical data. Letters by Eritreans to specific addressees in Sweden or to The Swedish Mission headquarters are a good source of biographical information. Individual missionaries too write home about their Eritrean co-workers or colleagues. These provide special, personal perspectives from the points of views of Swedes.

All these are very interesting sources. It would be interesting to analyze the various categories of writings and see what items are emphasized, what traits are praised, what the geographical provenance of the sources are in Eritrea etc.

I would like to use the obituaries as my main sources but broaden the bases of these obituaries by referring to the other sources of biographical information.

**Between Guerrillas and Securocrats? From Liberation to
'Normalisation' in the Horn's Foreign Policy Trajectories**

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The paper focuses on the sociologies of the region's governing movements – and how they have developed and evolved – as a means to explore and analyse regional security and foreign policy dynamics in the Horn since 1991. Looking particularly at Eritrea under the EPLF/PFDJ and Ethiopia under the EPRDF, the paper first explores the influence of guerrilla-era mentalities, relationships and mindsets in influencing the character and calibration of both movements' early regional (inter-)security relationships, culminating in the 1998-2000 conflict. The second part of the paper examines the extent to which these guerrilla mindsets have been abandoned, reformulated or recast in the foreign policy sphere light of significant changes in both countries' domestic and regional politics since the early 2000s. The purging of leading TPLF ideologues within the EPRDF and emerging prominence of Ethiopia within regional peacekeeping missions and interventions in the last decade has, it is argued, led to a gradual transfer of initiative in this regard to a class of 'securocrats' under the late Meles Zenawi's tutelage. This group's concerns and drivers have evolved beyond, and differ from, those of their guerrilla-era mentors but are no less militarised. In Eritrea, the country's marginalization by regional and international powers (particularly Ethiopia and the US) since the mid-2000s has excluded its policy-makers from those key regional 'socialization' fora which have helped cement the emergence of 'securocrats' in Addis, Kampala, Kigali, Nairobi and elsewhere. Instead, Asmara has re-engaged with its liberation movement heritage in a different manner – focusing upon notions of independence and self-determination in its regional relations.

Inquiry-based Learning in Eritrean Elementary Natural Science Classrooms

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The education system in Eritrea is working to achieve quality learning based on individual skill development and experience with science and technology. It has introduced different participatory methodologies which initiate students to do independent learning. The finding of this study concludes that elementary natural science teachers seem experiencing difficulties and problems in organizing and managing inquiry-based instructions for their students. The way students learn does not seem to help them develop critical thinking, skills and attitudes required for living a satisfactory life in a world dominated by scientific and technological activities.

The purpose of this study is to find out how teachers effectively use inquiry-based instruction and identify the problems of using inquiry in Eritrean elementary natural science classes. It focuses specifically on the development of a clear insight and understanding of inquiry-based learning and the nature, quality and extent of inquiry-based learning in classrooms. In addition, it deals with how to motivate teachers to improve their own methodological abilities. The argument for this study is that through inquiry-based learning students are actively involved in solving authentic problems within the context of the curriculum and/or community. The study uses both literature review and empirical data with representative science teachers, science educators, students, student-teachers and curriculum developers. The data is triangulated from a variety of sources that included open ended interviews with a purposive sample of science teachers and their students during school visits, classroom observations, questionnaires and document analysis. The finding of this study would help the teachers to examine their own practices in light of the best performing approaches to promote the effective use of

inquiry-based learning in natural science classrooms. In addition, the study suggests the possible methodologies and assessment approaches related to the effective use of inquiry processes.

Health Inputs and Child Survival: Evidence from East Africa

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The public policy response to the problem of high childhood mortality in developing countries has primarily focused on encouraging prenatal care and institutional delivery. Since there are no randomized trials of standard prenatal care and hospital delivery, it is difficult to assess the impact of such health inputs on survival chances without accounting for selection processes in the utilization of health facilities. This paper addresses the relationship between childhood mortality on the one hand, and use of health care and other socioeconomic variables on the other, in three African countries - Egypt, Eritrea, and Uganda - based on data from the 1995 Demographic and Health Surveys in the respective countries. In contrast to common analytic approaches where children are assumed to be independent we treat children with the same mother as correlated cases (multi-levels) within the same observation (woman) and allow for unobserved heterogeneity between women. Multilevel, multi-process hazard models are then used to simultaneously model mortality risks and the propensity to use health care. In some of the countries studied it is shown that while use of health care reduces mortality risks, such beneficial effect may be underestimated if adverse selection effects (due to more frail users of health care) is not accounted for. In others, the effect of health care is overestimated when favorable selection effects (due to more healthy users of health care) is not accounted for. Possible explanations for such differences are attempted; the findings' policy implications are discussed; and possible directions for future research outlined.

The 2002 Massawa Earthquake Sequence

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Starting from the first week of July 2002, the city of Massawa was shaken by a sequence of earthquake swarm. The first relatively large event occurred at 14:35 (local time), of 5 July 2002, and was strongly felt in Masswa. This event, which had a local magnitude of 4.3 (in the Richter magnitude scale), was also felt in Asmara in upper floors of multi-story buildings.

In the past, Massawa was also shaken by destructive earthquakes. In July 1884, the city was heavily damaged by an earthquake of a magnitude 6.2. Masswa was also heavily damaged by a series of earthquakes of magnitudes between 5.3 and 5.9 during August and September 1921. Most of the houses of the city were destroyed, and the remaining buildings were declared, by government order, not safe for habitation. There was no record of casualties.

The 2002 earthquake sequence was monitored by the seismic stations of the Geophysics Laboratory of the University of Asmara, which were located in Asmara and in Abaselama (near Adi Keih). About 150 events of the sequence were located using data obtained from the two stations. Analysis of the data shows that the largest event had local magnitude of 4.4 (this event occurred on the 13th of July 2002 at 3:14 local time). The b-value of the sequence was calculated to be about 1.47, indicating that the sequence of earthquakes was of the swarm type. The impact on structures of earthquake swarms, as compared to normal earthquakes, indicates that swarms could be more destructive.

Some Thoughts on Research in the Natural Sciences in the Context of Eritrea

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Efforts were made to build capacity for research and research training in Eritrea during the last twenty years or so. These were mainly done at the University of Asmara and later at the newly established institutions of higher learning, but efforts were also made at some ministries. These are critically reviewed.

In Eritrea, the major thrust of research must initially be directed to address development needs, but must aim, in the long term, to adjust to prevailing trends and norms. The nature of research and the associated changing paradigms are analysed. We are living in an era where multidisciplinary and cross-disciplinary approaches to research are gaining momentum. As an example, engineering and physical science methods are being used for solving health problems.

In this context, some thoughts at organizing research at the national level, and at the universities and institutions of higher learning are forwarded. Issues like overcoming the critical mass in team-based research, the merits and requirements of research centres, factors influencing prioritization of research areas, are discussed. Examples of successful countries and their approaches to research are given.

Biodiversity of Qohaito and Prospects for Ecotourism
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The geomorphological and environmental complexity of Eritrea is tremendous where there is an altitudinal gradient from sea level to over 3000 m, and climates can vary from wet and humid to xeric and dry. Due to its highly variable altitudes, Eritrea has a

multitude of habitats for plants and animals to occupy and this has led to its high biodiversity. Among this multitude of habitats, there are several areas with unique ecosystems that can be used as destinations for ecotourism. Qohaito is one of such unique places. Furthermore, what makes Qohaito as a more fascinating place is its breath taking landscape and unique archeological remains. According to CARP (2007), Eritrea is intending to include Qohaito on the tentative list of World Heritage. The activities of tourism related to culture and Eco-museum is indicated in the management plan of Qohaito and this can be further enhanced by adding detailed information on the natural biodiversity of the area. This paper therefore tries to explain that Qohaito, in addition to its importance as an archaeological site, possesses unique flora and avifauna, that can be used to attract more visitors to the place by promoting ecotourism.

The vegetation of Qohaito is an Afro-montane type characterized by the presence of *Juniperus procera* and *Olea europaeae* subsp. *cuspidate*. In its composition the vegetation of Qohaito contains several endemic species. The endemic species make 7.4% of the total floristic composition of the area. One of the endemic species is *Aloe schoelleri* known only from Qohaito plateau and its environs and nowhere else. Moreover, Qohaito also contains eight regional endemic flowering plant species. These are *Aloe camperi*, *A. elegans*, *A. percrassa*, *Echinops macrochaetus*, *Astragalus atopilosulus*, *Becium grandiflorum*, *Echidnopsis cereiformis*, and *Kalanchoe schimperiana*. The plants are regional endemic only known from Eritrea and Ethiopia. Furthermore, *Ephedra somalensis* (Gymnosperm) endemic to Eritrea and N Somalia adds to the peculiar floristic position of Qohaito.

The Avifauna of Qohaito Plateau is also very interesting for bird watching. It is part of the distribution of 15 regional endemic birds that are recorded only from Eritrea and northern parts of Ethiopia, known as Abyssinian endemics. All of these birds are rare and can be advertised to attract bird watchers and nature

lovers to promote ecotourism. The uniqueness of Qohaito as an archeological site that is amended by local culture, unique flora and fauna can attract more visitors which in turn can be used as means of income to local people.

Social Capital and its Manifestation in a Political Culture: the Case of Eritrea

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After a long and perhaps interesting divergence on the exact meaning and effect of social capital, it looks like there is convergence towards a definition which emphasizes social networks and civil norms within the social sciences. Social capital is considered to involve social networks and support structures, community participation, civic and political involvement, trust in people and social institutions, and norms of reciprocity.

Measuring the dynamics of social capital in society and how it affects the behavior and performance of people however is still an elusive task that demands the confluence of different disciplines of the social sciences and a deeper investigation into the nature and attributes of the subject matter.

In this study, I will consider social capital as an attribute of individuals manifested as the ownership of communities and discuss the extent to which causal propositions formulated at each level are relevant to the Eritrean reality. I will present some empirical evidence illustrating the possibility that, despite the current popularity of the concept, much of its alleged benefits may be a liability when it comes to facilitating the political transformation a society demands (needs).

Many authors have argued that social capital is positively related to economic prosperity, peaceful neighbourhoods, law and order, smooth administration and collective action. This, however, neglects the role, whether positive or negative, of institutions and

government in promoting this phenomenon. In many instances, social capital has served as welfare in the absence of the active participation of the state in many African societies. Contrarily, the state has strived in many parts of the world to promote social capital institutionally where it lacked strength or where it never existed.

This paper will investigate the relationship of a strong social capital and a lenient political culture in the Eritrean context and try to formulate a new theory that might help to shed some light on the dynamics of the political transformation of the Eritrean society throughout its recent history.

Peer Reproductive Health Education Trial in Eritrea

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Reproductive health is a state of physical, mental and social well-being in all matters relating to the reproductive system at all stages of life. Young girls carry the highest burden of reproductive health problems due to their risk taking behaviour, lack of knowledge, peer pressure, physiologic immaturity and low socioeconomic status. This study aimed to assess the effectiveness of peer reproductive health education in improving knowledge, attitude, and health service use of high school adolescent girls in Zoba Debub, Eritrea.

The study used a community-based, randomized, controlled pretest/posttest intervention method. The study schools were in Zoba Debub (Southern Administrative Zone), one of the six zobas in Eritrea. Four high schools were randomly selected from the 26 high schools present in Zoba Debub. One school was randomly selected from the four schools for intervention while the remaining three were used as controls. The study population was

randomly selected female students attending grade nine. The study protocol was reviewed and approved by the Scientific and Ethics Committee of University of Khartoum. Data was collected using predesigned and pretested questionnaire focusing on reproductive health knowledge, attitude and practice. The sample size was calculated using proportion formula (α 0.01, power of 95%, & effect size of 20%). Measures used were scores and proportions. Descriptive and inferential statistics (t-test and chi square test at $\alpha = 0.01$) were used to compare changes of pre and post-intervention scores using SPSS software.

In consultation with the school principal and teachers, and using inclusion criteria, seventeen students were selected as peer educators in the intervention school. The principal investigator gave a 15-day training on reproductive health to the selected peer educators. One peer educator educated one group of 8-10 students for three months. One teacher was selected to supervise peer educators. The principal investigator conducted supervision and discussion to peer educators every two weeks until the end of the intervention.

Based on informed consent, 627 students [164 in intervention and 463 in the control group] with a ratio of 1 to 3, were enrolled in the study. The mean age for the total study population was 15.4 ± 1.0 years.

A comparison of the pretest and posttest results on reproductive health knowledge, attitude and practice for the intervention group and between the intervention and control groups showed significant differences. For instance reproductive health knowledge score which was computed on a scale of 61 grade points was as follows: intervention group (pretest 6.7%, post-test 33.6%; $p = 0.0001$); control group (pretest 7.3%, posttest 7.3%, $p = 0.92$). Similar results were obtained for attitude and practice.

In general, reproductive health knowledge and use of facilities was poor among adolescent girls in Eritria but significantly increased after intervention. It is thus argued that school-based peer

reproductive health education can effectively be used to improve reproductive health knowledge and attitudes for sustainable healthy living and increased productivity.

The Eritrean Diaspora in Switzerland

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Until recently, Switzerland did not represent one of the classic emigration countries for Eritreans. Toni Locher, honorary consul and long-time expert of the Eritrean Diaspora in Switzerland, estimates that roughly 1,200 Eritreans had settled in Switzerland in the 1980s. Only in 2006, the Eritrean Diaspora in Switzerland witnessed a rapid growth, as a consequence of a fundamental change in the Swiss asylum practice towards asylum applications from Eritreans (Eyer and Schweizer 2010: 41). As a result, Switzerland today represents – along with Sweden, Germany and the Netherlands – one of the prime countries of destination for Eritreans in the global north (UNHCR 2014: 16). Thus, by the end of 2014, there were more than 24,000 Eritreans living in Switzerland (SRF 2015).

The paper presentation aims to give a broad overview of the Eritrean community in Switzerland and their living conditions. First, I intend to provide a short demographic picture of the Eritrean Diaspora and how the composition of the Eritrean Diaspora in Switzerland developed over the last decades. Further, I will provide information about the Swiss policy regarding Eritrean asylum applications and thereby also attempt to highlight the asylum strategy currently pursued by the Swiss authorities. At last, I will show contemporary public discussions and debates as well as the medial discourse in Switzerland concerning Eritreans in Switzerland. Thereby, the focus is on social and economic integration of the Eritrean Diaspora in Switzerland. In this context, I aim to point out several perspectives as well as obstacles

Eritreans may face in Switzerland, and additionally I'll try to illustrate attempted explanations of experts, scholars but also the Eritreans themselves for the current situation.

The Rules of Congruency in Tigrinya Cleft Sentences

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This paper deals with the rules of congruency in Tigrinya cleft sentences. Cleft sentences result from a syntactic shift of a plain sentence to a copula sentence, in which the predicate of the underlying plain sentence is relativized and becomes the subject of the cleft sentence, with the purpose of emphasizing as a predicate a component that is placed directly before the copula. All components of the underlying plain sentence, except the relativized verb itself, can be placed as a predicate directly before the copula. The order in a cleft sentence can be either relativized form – predicate – copula or predicate – copula – relativized form. Tigrinya cleft sentences are divided into concrete and abstract cleft sentences with differing rules of congruency: in a concrete cleft sentence the predicate can only be represented by the subject of the underlying plain sentence, or by an object that is placed unmarked before the copula; in an abstract cleft sentence all other components can figure as a predicate. In concrete cleft sentences the copula is always in congruency with the predicate, whereas in abstract cleft sentences the rules of congruency are more complicated and may be described as follows: if the relativized form is placed directly after the copula, the copula is in congruency with the subject of the relativized verbal form; if a form of *koynu* is placed directly before the copula, the copula is in congruency with it. As for all others abstract cleft sentences, the copula is either in congruency with the subject of the relativized verbal form, or it is put in the neutral 3rd sing. masc. In this context, however, abstract cleft sentences of the kind 'əyyu zə-

säbbər are somewhat problematic because their syntactical behaviour rather corresponds to that of a 'compound verbal form'.

Cadastre as the Basis for Sustainable Development

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The main purpose of cadastre system is to provide security of land tenure rights and ownership of other immovable property. Proper management of land and its resources demands accurate textual and spatial information. And accurate information is impossible without the proper registration of land (including other immovable property erected over it) and its resources. This should be seen as a must that has to be done for a country which strives to attain sustainable development goals.

Modern cadastre plays a key role for the proper management of land and its resources. But, in Eritrea, sustainable land management will likely continue to remain a handicap until secure land tenure system is implemented according to the Land Law and the cadastre system is gradually modernized. Proper land management requires accurate information of land and its resources so that well-informed plans are undertaken at the central, regional and local government levels.

The Eritrean cadastre has a long history spanning more than 125 years. It was established during the Italian colonial administration. The main purpose of the cadastre was guaranteeing security of property ownership for Italian settlers. However, despite its long history, it still remains incomprehensive and at rudimentary level.

The current Eritrean cadastre system needs to develop from its current rudimentary level in order to cope with the development needs of the country and serve as the basis for sustainable development. The paper provides an overview of the global and Eritrean cadastre systems, its current status, challenges, and

suggests the ways for improvement in order to serve as the basis for sustainable development.

Sustainable Aquaculture Development and its Role in the Food Security and Economic Growth in Eritrea: Trends and Prospects

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The contribution of aquaculture to world food production has increased significantly over the last few decades and this sector now supplies nearly half of the total fish and shellfish used for human consumption. Advances in culture techniques and the introduction of new species, have contributed to the rapid growth of the aquaculture industry. The rapid growth of this sector has also brought forth the need to ensure that development is based on environmentally responsible practices, including those concerning feeds. Therefore, considering its importance in the world food sector, it is widely recognized that the industry should become sustainable from every angle.

As the catch of wild fish declines, aquaculture is the only way to meet the increasing demand of fishery products. However, some opponents generally argue that aquaculture results in environmental pollution and diminishes wild fisheries resources, and it should be stopped or only conduct at extensive farming system. This extreme view lacks of global vision and long-term considerations including the increasing global population and food demand. As many scientists suggested that the future of aquaculture sector is challenged by the need to produce more fish for food security and nutrition in a further sustainable manner entailing technical feasibility, social license, environmental integrity and economic viability.

Eritrea is a small country at Eastern Africa with an extensive 2234km coastline; 1151km from the mainland, and 1083km from

the 356 islands on the Red-Sea, which is the 6th longest coastline in Africa.

Most of the coastline is gradually sloping beaches and shallow bays; hence, a perfect environment for fish farming. Based on my research findings at the coastline of the Red Sea (2002–2011, Massawa), factors such as feed availability, temperature and salinity have direct and remarkable effects on the growth and production of cultured fish in Eritrea's aquaculture practice. Aquaculture in Eritrea, if properly developed and managed could play key roles in food security and economic growth as the case in many developing countries, including China. Moreover, Eritrea is found at the very important strategic economic zone for China's new initiative Maritime Silk Road (MSR) and South–South cooperation plans. Indeed, aquaculture at Eritrea's coastline is one of the potential industries to be developed under this initiative.

The Stance of Language in Education Policy in Context: Policy and Practice in the Case of Eritrea

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Language diversity is one of the world's greatest human resources. However, in the 21st Century, the world's linguistic diversity is being seriously put at risk by the growing wave of economic and cultural globalization. The loss of indigenous languages and cultures and the high attrition rate of ethnic minority learners through majority language education programs are among contrasting points of concern for the public.

As it is reflected in the Eritrean Constitution (Article 4), all national languages are equal, and mother tongue instruction is used in elementary schools. Nevertheless, there are debates and concerns among the public on issues such as: status, position and role of the mother tongue education. Besides, the acceptance and

the degree of effectiveness of mother tongue education also vary from one language to another.

This research is aimed at reviewing the place of language in addressing issues of medium of instruction and diversity in Eritrea. In addition, it examines the effectiveness of the mother tongue instruction in ensuring equitable increase in students' enrollment, providing relevant education and offering quality learning in all Eritrean languages. The objectives of the study are to:

- Investigate mother tongue instruction in various parameters (access, equity, relevance and quality)
- Evaluate the gap between language policy statements and policy implementation and its implication in education
- Weigh up the efficiency and standardization of the languages as languages of instruction
- Scrutinize the acceptance of mother tongue in education and its function in other domains in relation to the two working languages (Tigrinya and Arabic)

To address these objectives, qualitative research is used because it is effective in clarifying connections between macro planning and policy making, and micro implementation at school levels. For triangulation purposes different tools (questionnaire, interview, focus group discussion and documents analyses) are used.

Representations and Storytelling: An Investigation of Why People are Leaving Eritrea

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This paper explores representations of Eritrean migrants' reasons for leaving their country. The aim of this study is to understand how Eritrea is being positioned in the wider discussion of migration. The theoretical framework is on representations, and in the theory section I explore how representation is understood as a term and in the context of stories and narratives. In the

methodology section, I detail and justify the use of critical narrative analysis (CNA), which is ideal in answering the study's research questions (RQs). The RQs essentially are, who is communicating the story? How is it being told? And is there a dominant narrative? The four sources I analyse belong to different representative bodies and offer diverse perspectives. I analyse a film created by the Eritrean Embassy media (government), a Diaspora campaign (civil society), a United Nations report (international development organisation), and three BBC news articles (media). Each source is analysed and a narrative is drawn out. After discussing my findings of each narrative, I conclude by explaining how there is not a dominant narrative found amongst the analysed sources but instead the mention of the national service program in Eritrea is common in all. In the conclusion I discuss the importance of understanding story and narrative construction as forms of representations and building Eritrea's story. Additionally, I also discuss how there is not a single simplified explanation of why people are leaving Eritrea and instead strongly encourage further dialogue and research to happen within the country.

Criminal Sanction and Infringement of Intellectual Property Rights in Eritrea

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Intellectual property (IP) refers to different products of the human creative labour such as inventions, literary and artistic products, new devices or varieties of designs. The reasons for legal protection of IP include two paramount causes the first one is recognizing the right of ownership of the creators, to enjoy the fruits of their creativity; secondly and perhaps most importantly, IP protection aims to encourage the investment of creativity, skills, time, finance, and other individual resources into innovation

in a way that is beneficial to society, and thereby to its sustainable development. The protection of IP rights has been one of the areas of the law which are covered with a lot of controversies and debates—for instance with regard to striking the balance between benefits of protection and the right of the public to utilize IP. This paper deals on the evolution of IP and the justifications for the criminal sanction of IP violation in light of its role in public interest. In the case of Eritrea wide spread IP infringements are self evident, a bundle of reasons could be listed as causes to these proliferations, yet the paper is concerned about one, the role of criminal sanction in control of IP infringement. Thus it will examine the Eritrean criminal justice system in relation to IP and will further delve on the legal causes for this phenomenon. After dealing with the basic tenets of IP law, two issues will mainly get the focus of the paper; one is the deterrent effects of the punishment given for IP infringement, which in most cases are very nominal and thus ineffective—owing to the passive attitude of the judiciary as well as the public towards infringement of IP rights. Secondly, the paper addresses the prosecution of infringements by the IP right holder in comparison to the advantages of prosecution of cases by the public prosecutor. Under the current as well as the draft laws of Eritrea, IP crimes can be prosecuted only up on the preference of the victim, hence the pros and cons of “preferential prosecution” will be compared to the procedure by the public prosecution, The paper argues that prosecution of IP infringements by the victims is obsolete, The principal causes for this failure include lack of awareness, motive and capacity—both financial and skilled man power to discover and investigate infringement. Hence it will show that IP are relevant not only to the individual but to the society as a whole—as such their prosecution should not be left to the whim of the individual right holder.

Scholarly Echoes of Ethiopia's Claim of Sovereign Right of Access to the Sea: Anomalous under International Law and Reaffirmation of Idiosyncrasy of Colonial Territorial Expansion

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Several Ethiopian intellectuals argue that Ethiopia has legitimate sovereign right of access to the Red Sea via Eritrea—legally, historically, etc. This paper emphatically refutes such claims and argues that, the establishment of modern Ethiopia and Eritrea as formal states with distinct boundary lines took place in the turn of 20th century. The objective existence and integrity of the colonial boundary was affected neither by Italy's invasion of Ethiopia in 1935 nor by Eritrea's federation with Ethiopia but was reaffirmed during the culmination of the latter's independence leaving no ground for any territorial claim. To substantiate this historically and legally illegitimate claim, the paper will critically analyze Abebe T. Kahsay's paper, titled 'Ethiopia's Sovereign Right of Access to the Sea under International Law'—an academic literature that conspicuously reflects the wrongly held conviction among some Ethiopians that are self-evidently untenable and lack objectivity. The paper will critically interrogate Kahsay's main arguments, which claims to be based on history, invalidation of the colonial treaties, the federation and the Algiers agreement. The paper will reveal Kahsay's erroneous depiction of history and interpretation of the international law norms that govern the issue of the law of treaties, the sanctity of colonial boundaries, etc. This paper further observes that Kahsay's arguments by and large reflect the argument that the Ethiopian empire made in the 1940s to gain sovereignty over Eritrea. The paper likewise argues that Kahsay's assertions, which I term them poignant predispositions and surmises, perversely and derisively rebuffs the African colonial territorial definition of a state that keeps the territorial integrity of African states intact. The paper's aims to demonstrate that unfounded academic claims among Ethiopian scholars reflect long

held opinion among some Ethiopians that Ethiopia as a historic and big state should acquire sovereign right of access to sea.

Got Eritrea? Smart Power, the Eritrean Diaspora and Lessons from the Asia Pacific Countries

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Eritrea needs smart power in order to strengthen its hard and soft power, respectively. The Eritrean Diaspora has a major role to play in this effort. The expertise, the education, the technical know-how, the talent and etc. are in abundance. This paper argues that if Eritrea's smart power (a combination of hard and soft power) has to have a profound impact on Eritrea and the world, the aforementioned scattered abundance along with the local production of knowledge need to be systematically harnessed, channeled, organized and be financially supported by the government. The paper also explores that Eritrea could learn lessons from the smart power of the Asia Pacific Countries.

The Role of Archives in Eritrea's National Development Project

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Most of Eritrea's development projects such as roads, dams, schools and etc. are visible, quantifiable and measurable. Could the archives (public and private) which are the center of Eritrea's collective memory and the primary source of information, contribute to Eritrea's National Development Project and be visible, quantifiable and measurable, too? This paper examines the function, organization and role that the archives must and should play in Eritrea's National Development Project.

Developing Practice of Collaborative Professional Development at the College of Education

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Higher education pedagogy has recently received increasing attention among faculty at the College of Education. As the college is educating future teachers and education professionals, it is of critical importance to develop pedagogies for teacher education that can enhance the pedagogical interest and capacity of the future professionals. In the academic year 2015-2016, a series of staff development activities including 1) a bi-weekly Educator's Forum, 2) a weekly Pedagogical café and 3) a mentorship programme for newly appointed faculty have been initiated to encourage collaborative learning and professional development. These activities have been designed collaboratively with the leadership of the college and interested individual faculty members with support from an education specialist assigned to the college for the academic year. The paper reports on the experiences and outcomes of the activities from the 1st semester (October 2015 – February 2016). Following the practice of action research, sets of qualitative data, including drawings, written empathy-based stories, exercises, needs assessments and evaluations have been collected throughout the activities to inform practice. In this paper, an overall analysis of the material is done to understand how the faculty has benefitted from the various activities. The focus is on identifying the means of support most beneficial to the early career teacher educators and the kinds of activities that can best contribute to strengthening the pedagogies of teacher education at an institutional level.

**Sustainable Digitisation of Valuable Collections Owned by the
Eritrean Research Documentation Centre**

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This paper will make use of research that was conducted as part of a Masters in Information Technology programme. The authors will reflect on the state of digitization at the Eritrean Research and Documentation Centre (ERDC) – which manages several valuable heritage collections. The purpose of the research was to advise on the sustainability of a digitization programme but we will also report on the current selection process followed when digitizing these collections. The recommendations captured as part of the research will be used to advise on the preparation of a digitization policy as well as indicate what could be regarded as essential guidelines and manuals necessary at the start of a sustainable digitization initiative.

The research followed a qualitative approach and a case study research design. A thorough literature study was conducted to identify appropriate procedures for digitizing valuable collections. In-depth semi-structured interviews were conducted with ERDC managers and current operation staff. During the interviews the following were addressed: the digitisation policy, selection criteria, processes, challenges and proposed solutions for digitization constraints. The main goal of the interview was to understand the current digitization progress at the ERDC and then compare these findings with the available literature.

This paper will report on the outcome of the exercise and will provide recommendations which could be used by institutions similar to the ERDC when considering digitisation efforts of their own.

The recommendations will specifically address the need for a digitization policy, appropriate selection criteria, the selection

process, staff responsibilities, the digitization process and workflow and the challenges of providing the necessary resources: a skilled workforce, advanced technological infrastructure and sufficient funding.

**Conversations with an Ethnomusicologist and
Cardinal Paulos Tzadua 1972–2000**

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I first met Cardinal Paulos Tzadua (1921–2003) in April of 1972 as a Fulbright scholar-ethnomusicologist conducting a year of fieldwork in Ethiopia. At the time my family was living in a rented house in Addis Ababa near the Ras Mckonnen Bridge. Since I wanted to record an Ethiopian church service, Alaqe Berhanu Mckonnen suggested recording the Holy Trinity Cathedral service. I went to the church to introduce myself and to ask if I could record a Sunday service. I was greeted by an ordained priest named Paulos Tzadua, not realizing at the time that he was about to become auxiliary bishop of Addis Ababa. He agreed to let me record from the empty pulpit located across from the pulpit where the actual sermon would be given. And thus our friendship began. Thereafter I have referred to him as “Abba Paulos”.

Abba Paulos, born in Addifini, Eritrea discovered I knew one of his closest boyhood friends, Kagnazmatch Ghebremedhin Tessema, who eventually became the accountant for Asmara, and with whom Paulos went to St. Michael's primary school in Sagenetti, Eritrea. Ghebremedhin was assigned to be my host in 1962 when I first met him after arriving in Asmara for additional training, and before I began my tenure as a US Peace Corps volunteer teacher in Mendefera and later in Asmara.

Drawing from my field diaries, Paulos' letters, and photographs, I suddenly realized, among his many interests, he seems to me to be

a closet musicologist. These materials reveal thoughts and insights that span almost three decades, including his unpublished notes on music, his early desire for a religious life, a preference for becoming a researcher rather than an archbishop, that he missed hearing the live indigenous traditional songs of Eritrea and Ethiopia, and of his scholarly work translating the *Fetha Nagast*.

Infringement of Copyright of film in Eritrea

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Copyright encourages the creation of new works and this collectively fosters the development of art and culture of a country. Moreover, it boosts the economic aspect of a nation and its cultural progress. In Eritrea, over 400 films have been produced since independence. In practice, there are different procedures that a film passes through if it is to be permitted to be filmed or distributed, even if these procedures do not exist in the law. In Eritrea, there are no film production companies and films are made by the effort of persons who have skill and money. Film makers expect a return of their by exercising the rights conferred to them by the virtue of copyright. Some people in the field think films produced in Eritrea are very low in their quality and are not worth copyright protection. However, the law does not consider quality for purpose of giving protection to artistic works.

Nevertheless, most films are illegally reproduced and distributed by infringers. This results in deprivation of the copyright holders from their economic as well as their moral rights. On a related note, the law is in its elementary level and hard to say it can sufficiently protect copyright holders. As a result, the film makers are not being encouraged to pursue their profession.

In this paper, the writer discusses different infringements that are encountering the film industry. The writer also examines the copyright provisions in the Transitional Civil and Penal Codes of Eritrea as to their efficiencies to regulate copyright and penalize

infringers. The paper also tries to discuss the institutional infringements that affect the creativity and motivation of the Eritrean film makers. The criminal punishment is very nominal and is instead encouraging infringers to pursue their infringements. Consequently, most cases are settled outside the legal system by alternative dispute resolution mechanisms. This paper will recommend amendments to the Transitional Civil and Penal Codes to rectify the existing problems.

Eritrean ex-fighters in Britain: Journeys through Migration and Long-distance Participation in the Struggle for Independence (1970–1990)

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The research is a historical exploration of the way in which Eritrean freedom fighters continued to participate in the struggle for liberation whilst in the Diaspora, focusing on the testimonies of ex-fighters who arrived in Britain during the 1970s–1990s. The research seeks to highlight both the personal and collective dimensions of transnationalism, following the migration and political journeys of both Eritrean Liberation Front (ELF) and Eritrean People's Liberation Front (EPLF). Prior to Eritrean independence, many ELF fighters were forced into exile during a civil war, whereas some EPLF fighters abandoned the movement, yet both continued to support the liberation movement in the Diaspora. This research offers a unique insight to our understanding of the history of the African Diaspora in Britain, the development of African liberation movements, and consequently contributes towards the history of Eritrea.

Documenting their journey through migration as the first wave of Eritrean refugees will provide a historical context to understanding contemporary discussions on African migration to Europe, particularly at a time where the second episode of Eritrean

migration is considered a global humanitarian crisis. Hence, the research presents itself as a starting point to analysing the arrival of the Eritrean community in Britain. By drawing out the specific experiences of ex-fighters, it provides an important and historically significant political framework to consider African liberation movements, in the context of transnationalism in refugee and exile communities.

Following the political journeys of ELF and EPLF ex-fighters prior to Eritrean independence, it also hopes to unveil the complex nature of transnationalism within long distance participation in the liberation struggle. As well as enabling us to understand how both ELF and EPLF ex-fighters in the Diaspora joined together in a collective, yet challenged, campaign for independence from Ethiopia.

The 1 Ma Old Human Assemblage from the *Homo* Site at Uadi Aalad, Buia (Danakil Depression of Eritrea): An Updated Record

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Fossil human remains in the northern Danakil Depression of Eritrea have been discovered in two localities of the Dandiero Rift Basin near the Buia village: Uadi Aalad and Mulhuli-Amo. The assemblage from the c. 1 Ma old *Homo* site at Uadi Aalad consists of an adult cranium including the face, two permanent teeth, and three pelvic portions.

The cranium expresses a blend of *H. erectus/ergaster*-like and derived features more commonly found in Middle Pleistocene specimens. The braincase (995 cc) shows modest lateral protrusion of the temporo-mastoid region, high positioning of the maximum parietal breadth and from sub-vertical to slightly downwards converging parietal walls. The endocast is relatively long and narrow, more than any other known fossil specimen. For the face, there is a large zygomatic process filled by a voluminous maxillary sinus. The orbits are tall, representing over 90% of the orbital breadth. An anteriorly-placed incisive canal opening is another derived feature.

The teeth represent an upper left lateral and a lower left central incisor, respectively. Both lack any expression of accessory features at the cingular region, and also exhibit relatively thin enamel.

The pelvic remains represent a right adult hip bone in two partially articulating portions, and a left symphysis. The reconstructed partial hip bone has an intermediate greater sciatic notch between OH 28 and KNM-ER 3228. The estimated body mass exceeds 65 kg. The symphyseal characteristics indicate this specimen is from a male aged within the third decade of life.

The ongoing investigations in the Danakil have the potential of providing critical information to the debated questions about the evolutionary biohistory of *H. erectus/ergaster* near the end of the Early Pleistocene, a period poorly represented in the East African

record. More research will likely also contribute to the assessment of its phylogenetic relationships with the taxon *H. heidelbergensis*.

Speaking of Eritrea: A Meta-Analysis of the Discourse Structure of Competing Narratives

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Competing narratives regarding Eritrea shape foreign policy and international relations. This presentation is based on meta-analysis of competing discourses on Eritrea using tools of linguistics and textual analysis. We compare and contrast twenty texts on Eritrea published by international and governmental agencies, non-governmental agencies (NGOs) and international print media. This presentation explicates the ways in which competing discourses establish themselves, how one narrative becomes dominant, and how dominant discourses silence or marginalize alternative discourses. Dominate narratives “involve relations of power in which unity with the past is artfully continued” (*Constructivism, Narrative and Foreign Policy Analysis*). The presenter's analysis demonstrates the inherently political nature of the dominate constructed international discourse on Eritrea.

Every person, every tribe, every nation has its own story. Eritrea is no exception. Participants will gain understanding of how narratives that misrepresent Eritrea can gain so much traction in the Western media. We explicate the ways in which the organic and lived narratives of the people of Eritrea have been deliberately misconstrued and misrepresented.

When we step into the lived story of a people with integrity, the outcome will always be a *multi-voiced* and *richly textured* narrative. Accurate narratives present different perspectives based on interrogation of both the present situation and the historical context. Such narratives are often full of paradoxes and complexities that are not easily explained. Our true narratives are

as complex as the lives we live. Deliberately distorted narratives simply seek to sweep aside such complexity in the interest of supporting an *agenda*.

Under the Sycamore Tree: Elaborating the Eritrean Tradition of Peer Dialogue and Customary Law and Tradition to Promote Conflict Transformation in Diaspora Communities

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The central aim of this presentation is to elucidate the long-standing Eritrean tradition of using dialogue to resolve conflicts and explore how it might inform alternative dispute resolution practices around the world. Eritrea's success in mediating conflicts through the use of customary law and tradition has been well documented (Senai Andemariam, "Ensuring Access to Justice through Community Courts in Eritrea. Chapter Six" in *Customary Justice: Perspectives on Legal Empowerment*. Janine Ubink, Editor). Customary laws and traditions have been recently codified in the *Civil Procedure Code of the State of Eritrea* (2015). Yet little scholarship has situated the Eritrean model in the context of research and practice on mediation and conflict transformation. This presentation highlights ways in which the Eritrean model is congruent with best practice in alternative dispute resolution and might well inform this field of practice.

Eritrea has a long established tradition and record of peaceful inter-faith relations between Moslem and Christian communities. We seek to develop and disseminate an elaboration of how the Eritrean model of interfaith relations and dialogue in the context of customary laws and traditions might be useful to inform efforts to reduce conflict and promote understanding between Moslem and non-Moslem Diaspora communities in the U.S., Europe and the rest of Africa.

Domesticity and Gender Suppression as a Colonial Project in Africa

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Domesticity as a colonial ideology legitimated gender inequality and championed gender crisis in Africa as one of the invisible weapons that the colonialists employed in their furtherance of the colonial project in Africa. It was one systematic strategy through which they divided and ruled men and women by creating the private and public sphere for women and men respectively. Leading in this intellectual crusade are Jean and John Comaroff (1986:38) who present three traditions that link domesticity and gender suppression to the colonial project. Hansen (2002:5) in support of Jean and John (1992:19) argues that domesticity was purely a western construction that aimed at repositioning the African woman to the private space and above all inferior to man. Shreiner in McClintock (1995:271) buttresses this line of argument when she contends that the power of black women was suffocated by the white dominance through domesticity. On the contrary pockets of counter argument suggest that domesticity was not purely a colonial project, some African societies even before colonialism exercised some forms of domesticity. This counter argument is represented by Beauvior (1952) who attempts to trace the history of women and men in their childhood formative years long before colonialism. Shostak (1981:182) alludes to the same line of argument when she illustrates the pre-colonial position of women in the African Kung society.

This paper examines the extent to which domesticity was used as a colonial strategy to subdue Africa. Specifically, the paper engages in the debate whether domesticity was a colonial project or part of African cultural heritage. The paper also examines the position of women (politically, economically and socially) in the pre-colonial Africa, colonial Africa, and postcolonial Africa.

Gender and Number Morphology in Tigrinya¹

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There is strong evidence for concluding that in languages with a gender/number inflectional system, i.e., more generally a nominal class one, inflectional exponents provide an interpretive contribution (Manzini and Savoia 2005, 2007, 2011, Kihm 2005, Dechaine et al. 2014, Kramer 2015 on Amharic) and hence can be equated to types of classifiers. Tigrinya nominal/adjectival morphology (cf. Tewolde 2002) provides us with the evidence that gender/number morphology has interpretive content which concurs to fixing the denotation of the noun. The syncretism of feminine and plural morphology cannot be captured in terms of traditional descriptive categories, strengthening the conclusion that different properties must be involved.

Next-door Archaeology: Recent Investigations in the Lowlands between Eritrea and the Sudan

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The Italian Archaeological Expedition of the University of Naples “L’Orientale” started investigating the region between the Gash and the Atbara in Eastern Sudan, not far from the Eritrean border, in 1980, under the direction of Rodolfo Fattovich. In the first phase of the project, which ended in 1995, the general cultural sequence of the region and the main cultural following processes taking place in the region were outlined:

1. The peopling of the region seems to be characterized by a certain degree of continuity from the 5th millennium BC to

¹ We are grateful to our colleague Tesfay Tewolde Yohannes, who offered to be our informant.

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- the 1st millennium AD, as shown for example by a characteristic tradition in pottery production, the Atbai Ceramic Tradition, also extending to the Agordat region, on the Eritrean side of the border, whose main feature is the occurrence of *scraped ware*;
2. An agro-pastoral economic strategy may have emerged in the studied region in the 4th millennium BC and seems to have been characterized by an increasing degree of mobility in the herding component resulting from environmental and social stresses;
 3. In the 3rd and 2nd millennium BC the region seems to have been involved in a broad network of contacts, possibly related to the economic exchanges through which Egypt (and via Egypt the rest of the Mediterranean and Near East) was supplied with African raw materials such as ivory, ebony, spices, animal skins, gold, etc.;
 4. Hierarchical societies may have arisen in the region in the 3rd millennium BC;
 5. In the 1st millennium BC, although the region was still crossed by caravans and nomad groups of herders, the groups inhabiting it were marginalized, possibly because of the fledgling states of central Sudan and of Northern Ethiopia and Eritrea.

After a gap of 15 years, in 2010, the expedition resumed fieldwork. The data collected in the last years considerably enriched our knowledge of the ancient economy of the lowlands, of the style of life of their inhabitants, of their social organization and of their involvement in the long-distance exchanges. Actually, also in the light of the recent researches in the Eastern Desert, in the Fourth Nile Cataract region and on the Red Sea coast, the lowlands can be considered crucial in the processes of interaction between the Mediterranean and Africa taking place *via* the Nile Valley and the Red Sea, two routes which were complementary and sometimes alternative in ancient times. These results can shed

some light also on the Eritrean side of the lowlands, certainly a very rich region in terms of archaeological heritage, as shown by some explorations and rescue archaeology conducted in the Bisha region by Eritrean researchers in the last years.

The Relation of Ancient Yemen with Abyssinia in the Light of Recently Discovered Epigraphic Evidence

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The American Foundation of the Study of Man (AFSM) has been excavating at the Awām–Temple/Maḥram Bilqīs, near Ma'rib, Yemen, since 1998. Nine seasons of excavations yielded ca. 500 new Sabaic inscription. The speaker is the epigrapher of the AFSM and documented all these inscriptions in the field. A couple of these newly discovered Sabaic inscriptions give us new data about the relation between the kingdom of Saba' and Abyssinia. The purpose of this paper is to give an outline about the relation of the kingdom of Saba' with Abyssinia according to these inscriptions. This paper aims also to present a newly discovered Sabaic inscription that gives us a report about a diplomatic Sabaeen mission sent to Abyssinia at the beginning of the 3rd century CE.

An Operating System (OS) with Eritrean National Language Interface

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The purpose of good software is to have an impact on people's life and to make existing work easier with clarity. To ensure that software makes a positive contribution to how we lead our lives,

this research introduces software which will lead to the introduction of computers at a much earlier age in the high school curriculum. The target audience to benefit is Eritrean children. In Eritrea school students are given basic knowledge of computers beginning from 9th grade onwards in high school. This software, if introduced can contribute towards provision of computer education to the Eritrean society especially to school children, the target audience, both from urban and rural parts of the country. The focus is on students who do not have real exposure to computers and to create equal awareness on computers and their operations to all children throughout the nation. This is one of the primary reasons why the collegiate curriculum includes an introductory course in computers at freshman level. This is where we present our goal of equality in computer exposure.

On successful implementation, the project can benefit the Eritrean school students in the following ways.

- Introduction to computers and their operations can be started in the 5th grade at school as the learning language will be local language.
- All the low configuration systems at school can be made use of as the OS will work at existing configurations.
- Many low configuration systems that are replaced in institutions and organizations can be reused at schools
- This new way of teaching with local language interface will help in opening new doors for research at education quality, system performance and system reusability levels and this trend can be introduced to all developing nations which are ever facing a resource crunch.

Archaeological Research at Adulis: The Eritrean-Italian Joint Project 2011-2015

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The Eritrean-Italian Archaeological Project in the ancient town of Adulis started in 2011 in collaboration with the Local Authorities, under the direction and coordination of the National Museum of Eritrea, the Museum of Massawa and the Research Centre on Eastern Desert (Ce.R.D.O.), and in collaboration with the Università degli studi “L’Orientale” of Naples, the Politecnico of Milan, the Università Cattolica del Sacro Cuore of Milan.

The project aims at the rediscovery, study and valorisation of the archaeological remains of the town, also with the intent to create the first archaeological park in sub-Saharan Africa, for the touristic development of the region.

The wide research themes inherent to an area that in antiquity represented a crucial point within the net of cultural contacts and exchanges between Mediterranean and Orient, the complex issues regarding the site conservation and fruition, represent an important opportunity to improve the interdisciplinary contributions of the traditional research areas of the different Universities involved and of the Eritrean team of archaeologists, in a perspective of public archaeology.

In the conference, the results of the first five fieldworks, concerning different excavation areas of the ancient Adulis, will be presented. Sector 1, Sector 3 and Sector 5, investigated by the “L’Orientale” University of Naples, with evidences related to the domestic settlement from the 1st- 2nd to the early 7th century AD. The religious buildings in Sector 2 and Sector 4: the church in the central northern sector of the town – the so called ‘Altar of the Sun’ – and the church located at its eastern border, the excavation of which is entrusted to the Catholic University of Milan and the operations of conservation and programmed maintenance,

conducted by the Politecnico of Milan, which represent an important part of the project.

Asmara: The Planned and Unplanned City as Common Cultural Heritage

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The Asmara city planning concept is based on mixed approach (residential, commercial, administrative office, social services building etc.). This made the city liveable with a lot of social interaction which other cities don't have. Asmara has been described as representing an ideal which urban planners all over the developed world are trying to introduce into cities. In particular, Asmara has one of the highest concentrations of Modernist architecture anywhere in the World, built almost entirely in the 1930's by the Italians. Despite to build quickly, the colonial government of the time allowed radical architectural experimentation that would not have found favour in more conservative European environment.

Asmara therefore became the World's prime building ground for architectural innovation during the Modern Movement. That this occurred at all is remarkable enough, but that these buildings should have survived in such numbers today makes it one of the finest Modern cities in the world.

But, despite the various town plans prepared at different times for the new city, the ancient village survived until now, preserving its natural 'form' and adjusting itself to the new surrounding city with wisely placed insertions and spontaneous inlays. At first sight, Abu Shaul looks like the typical 'informal' zone that usually characterizes the suburbs of most modern African cities; the images of its frail roofs, held together by stones and tires, its woven and thick architecture and the wretched, poor condition of its inhabitants strengthen this hypothesis. But going through its

inner alleys, its very true soul comes out: not a ‘planned’ town, since ‘mentally designed’ in harmony with the surrounding natural landscape.

The urban planner should not choose more between order and disorder, because the city needs the primitive settlement and the chaos of its fringes. In this mess, there is a secret order which is fraught with History.

Canned Meat: A Brief History of the Eritrean Canned Food Industry

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The paper deals with the history of the canned meat industry in Eritrea and focuses on the ecological and social impact of this industry on the Eritrean society. The first canned meat factory was inaugurated in 1913 and gave a substantial contribution to the alimentary needs of the Italian army during WWI while in the 1950s Israel *Tzema* (rationing system) made extensive use of Kosher corned beef prepared in Asmara. Up to the 1960s the canned meat sector was part and parcel of the industrial boom that was invested in the country and affected the social fabric of Eritrean society. The paper deals with the modification stimulated by this industry on the country, focusing on the human and environmental factors and how industrial production prompted the promotion of a new work ethic.

The sources used in this paper include archival documents, interviews and locally printed sources that shed new lights on the industrialization of Eritrean society and the role played by local entrepreneurs and workers.

Surviving (with) Theatre: Scenes from the ELF and EPLF Cultural Troupes in the War of Independence

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This paper provides an introductory cultural history of the emergence and problem-ridden continuity of cultural troupes during the Eritrean war of independence against Ethiopia (1961–1991), particularly during the 1970s and early 1980s. Both armed liberation movements, the Eritrean Liberation Front (ELF) and the Eritrean People’s Liberation Front (EPFL), will be considered, though focus of this presentation shall be on the much-neglected history of the ELF cultural troupes. I argue that the ELF laid the foundation for a unique fighter culture to emerge, but that the EPFL developed that culture further. Above all, I will enquire into the ‘functions’ of performance in relation to mechanisms for survival. Life was immensely hazardous in the field and did not allow for a sharp distinction between culture, creativity and combat. Often ‘performing for survival’ referred not only to the liberation war, but also to the continued existence of cultural troupes, and to the various occupational hazards theatre people were exposed to.

Engineering Reverse Innovative Opportunities and Challenges for Growing Economies

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One of the greatest achievements of industrial innovations of the 20th century is agricultural mechanization. Besides to non-machinery agricultural inputs (land, labor, seed, fertilizer, weed and pest management), machinery systems in modern agriculture significantly impacted the productivity for in the production of food, fiber and energy. Over the last half-century, USA

agricultural production system among the globally leading innovators of industrial technologies and their integrations in machinery systems have produced approximately annual growth rate of 1.4 Total Factor Productivity (TFP), an index that measures technological impacts on productivity less capital inputs. Such positive technological impacts were reflected on the average annual growth rate of inputs machinery system (+0.9%), fertilizer and pesticides (1.6 to 5%), reduced rural labor (-2.4%) (USDA). Some of the tangible technology impact indicators, for instance, in Iowa, USA include Global Position System (GPS) on farm tractors, increased effective machine field capacity and vehicle speeds such as 9 hectare/h field cultivation at 10 km/h, 12 hectare/h planting seeds at 8 km/h, 3 hectare/h combine grain harvesting at 6 km/h; and corn and soybean yield ranging from 86 to 110 quintal/hectare and 30 to 34 quintal/hectare, respectively.

Recent global trends indicate reduced market share of advanced machines in modern agriculture countries' economies (such as, the USA, Canada and Europe), fast growing communication and information systems (IT) technologies (IT) in growing economies in Asia, Latin America and Africa and rapidly growing global population. The needs for crop land expansion, input intensification and efficiencies of agricultural machines in these growing economies is bringing paradigm shift on how scientific and technological pathways are developed and integrated for food and fiber production systems in the globe.

Global leaders and emerging industrial technology developers promote reverse engineering innovation pathway for design of products and integration into the newer markets. The reverse engineering approach captures end-user engineering requirements and develops products that fit into the end-user socio-economic and physical geography conditions.

The opportunities and challenges on how the frame work of reverse engineering innovation pathway could be implemented to increase food and fiber production in Eritrea will be explored. A

comparative analysis with recent modernization in India will also be presented. The innovative pathway will also highlight future bridging of services Eritrean infrastructures could offer to the regional growing economies.

Food Security in IGAD Countries: Unfinished Agenda or Unattainable Goal?

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IGAD region comprises of the countries of Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan, South Sudan and Uganda. The region covers an area of about 5.2 million square kilometres, with an estimated population of over 190 million people. The IGAD region has enormous natural resources including natural gas, petroleum, gold, geo-thermal, long rivers, great lakes, long coastlines, high mountains, diverse flora and fauna, long sunshine hours, irrigable lands, wet lands and hardworking people.

To date, the economic mainstay of the IGAD region is agriculture with heavy reliance on environment and natural resources. In their policy documents, the governments have indicated food security and environmental protection as their top priorities, and agriculture is expected to play the leading role. While their agriculture has the potential and ability to increase productivity and enable the countries achieve food security, including the capacity to generate the financial resources required to import food to fill the gaps they have, however, to date the countries are still structurally food deficit because of the interwoven environmental, economic and political constraints. Thus, doubt still remains whether the food security strategy is effectively implemented and the approach to food security is conducive to the transformation of the agricultural sector.

Based on literature review, the objective of the study is to critically analyze the opportunities and challenges of these countries in

achieving food security and suggest interventions that can enhance transformation of their agriculture and achieve the desired level of food security.

**Massawa's Reconstruction After the 1921 Devastating Earthquake:
Planning, Authenticity Test and Lessons to Future Restorative
Efforts in Eritrea**

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This paper aims to explore the 4-year massive reconstruction work undertaken by the Italians following the violent earthquake experienced by the port city of Massawa on 14 August 1921 and examine, in light of present-day international conventions and charters, whether the work lived up to the test of authenticity. As heritage conservation by its very nature is not limited to the physical recovery of monuments and sites, but is also concerned with the intangible identities, the paper intends to inquire if the reconstruction efforts in Massawa contributed to regenerating the social, cultural and economic fabric of the community inhabiting the area; and how far traditional craftsmanship and the participation of local, ordinary people was put to effective use in those efforts.

The conclusions we draw will guide us in the direction of another useful conception: How will this post-trauma reconstruction (to borrow an expression from the theme of a recent symposium by ICOMOS) that took place long ago affect Massawa's potential inscription bid in the future as World Heritage Site?

Tuning the Patent System for Eritrea

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The economic impact of intellectual property is difficult to quantify, but is widely understood to be an integral part of economic growth in many developed economies. Unfortunately, the developmental impact of intellectual property policies, particularly with respect to African economies, has not been adequately addressed causing a dearth of literature on the subject. This paper examines the potential economic impact of implementing a patent system in a developing economy such as Eritrea. I will discuss the potential impact of implementing a Trade-Related Aspects of Intellectual Property Rights (TRIPs) compliant patent policy in Eritrea by examining the connection between patent policy and the economy in similarly situated countries. I argue that to promote sustainable development, economic growth, and local research and development, a developing country such as Eritrea, should promote nascent, strategic sectors of its economy by using intellectual property as part of a holistic developmental agenda. This paper provides a new perspective and policy recommendation to promote economic development in Eritrea through the promotion of intellectual property and its respective policies.

Practices and Trends in Educating Children with Developmental Disabilities in Regular Schools: A Case Study of Eritrea

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Debates and dilemma entangle the education of children with learning difficulties - children with intellectual or neurological impairments such as autism and Down's syndrome. In recent years, regional education branches of Eritrea initiated educational

provision for children with learning difficulties in self-contained special classrooms within regular schools. The initiative, started up with parents' insistence to emulate transient development experience in the field and in compliance with statutory education policy pronouncements affirming provision of basic education to all children, including the disabled, expanded education opportunities for these children. However, the characters as well as outcomes of such provision remained uncharted. This case study, using a qualitative methodology and data collection instruments, such as observation, interviews, and document analysis, explored the experiences, interactions and belief system of education provision in the special classrooms.

The study identifies the special classroom teacher, by and large, the principal workforce to realize curricula and pedagogy for students' diverse education needs. These teachers' instructional strategies comprised learning through play, imitating actions, lecturing as well as individual support, representing the emergent 'child-centered' approaches considerate of children's capacity. Teachers forge courteous partnership records with parents to accommodate students' needs. Moreover, the opportunities created and the experiences and effects gained are widely perceived as encouraging by stakeholders. However, prevalent beliefs about education, which appreciate children's learning and progress in terms of reading, writing and numeracy competence of academic subjects rather than functioning and independence in community livelihood, is widely stated as unattained, thereby inculcating the assumption of a failed service. Additionally, absence of individual education plans ascertaining students' purpose of education, lack of vocational streaming fostering independence, and obscure roles of education development and policy architects – scholarly and institutionally- are anxiously stressed concerns of stakeholders.

Status and Distribution of Macro-Nutrients (NPK) in Soils of Hamelmalo Area

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The study was conducted in Zoba Anseba, Sub Zoba Hamelmalo, which is located on the Keren – Nakfa road, 12 km North of Keren city. The study was conducted in two adjacent sites, i.e., Hamelmalo Agricultural College campus (HAC) and Basherri watershed area (BWA). The objectives of the study were to determine the macronutrients (NPK) status of soils under different land uses in Hamelmalo area and the vertical distribution of macronutrients (NPK) in some selected profiles and their relationship with physico-chemical properties of soils. Global Positioning System (GPS) based soil samples were collected randomly from different land use systems, i.e., cultivated (Cereal and Horticultural) and non-cultivated open wood land (OWL) areas. On the average, 30 sub-samples were collected from each block and one composite sample was prepared for each block. Surface soil samples were collected from 0–20 cm depth. Moreover, two soil profiles in each block were exposed. The research had one year duration and during this period soil physical properties (BD, PD, TP and Texture) and soil chemical properties (pH, EC, OM, TN, P and K,) were analyzed. The value of pH and electrical conductivity ranged from neutral to strongly alkaline and non-saline, respectively. The textures of majority of the surface samples were found sandy loam whereas texture of soil in the profiles of the study area ranged from clay loam to sandy loam. In general, the ratings of OM and TN content of all soil samples varied from extremely low to low. Whereas available P was rated as extremely low. TN contents in the soils were highly significantly correlated with OM and TP, 0.799 and 0.885, respectively. The TN was also found to be correlated significantly with clay content (0.805). However, the TN was found to be

significantly but negatively correlated with BD and PD, -0.880 and -0.709 , respectively. Exchangeable K^+ showed highly significant correlation with clay content (0.843).

An Analysis of the First European Report on the Dahlak Kebir Archipelago, Written by the Florentine Navigator Andrea Corsali
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This paper analyses one of the first European accounts of the Dahlak Kebir archipelago, written by Andrea Corsali. Corsali was an Italian humanist aboard a Portuguese exploration ship that was subsequently shipwrecked off the coast of Dahlak Kebir in 1516. Many crewmen lost their lives in the shipwreck; the survivors, amongst them Corsali, were rescued by Danakil pearl fishers and became guests of the young Dahlak Sultan Ahmed. The surviving crewmen remained as guests there for a month, during which Corsali collected a large amount of information about the island. This information was relayed in a letter he wrote to Lorenzo de Medici in 1517, which represents the first European documentation of the island's flora, fauna, customs and trading.

An attentive observer and keen narrator, Corsali also recounted the political strategies of the Ottoman Turks who were dominating the commercial sea routes between Asia and the Mediterranean sea, and the Portuguese invaders who, in conjunction with the Christian kingdoms of Abyssinia, were trying to displace them. Moreover, Corsali was carrying a letter from Pope Leone X which was to be delivered to the Abyssinian King Lebna Dengel.

This paper will discuss the socio-political and environmental observations made in Corsali's 1517 letter, as well as his account of the events that happened. Corsali's letter will be discussed with the aim of highlighting his approach to knowledge, which was free from religious prejudice, thus revealing a curiosity for the world

and a method of narration that reflect an exceptionally modern style for the time period that the letter was written in.

Yemen, the Gulf States, and the Horn of Africa: A Shift in Relations?

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The intensifying conflict in Yemen since 2011 has become focal point for regional relations. The conflict intersects key international agendas: the post-Arab Uprisings trajectory, competition between Iran and Saudi Arabia for regional influence, global migration flows, and counter-terrorism. For the Horn of Africa, the conflict in Yemen is also a significant issue, for both security and humanitarian reasons. However, as the conflict has intensified, it has also formed the basis of adjustments in relations between the Gulf States -- especially Saudi Arabia -- and the nations of the Horn of Africa. These evolving relations have important implications for understanding the relations within the Horn of Africa, and the future of the region's security.

Migration and Human Trafficking in the Horn of Africa

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The Horn of Africa is at the crossroads mainly due to the emerging transnational security challenges. The migration syndicates and the illicit transnational human movements are of the major human security complexes that pose a threat to the fragmentation of the region. Given the fact that the region is underdeveloped, the borders are porous, the regimes are tyrants

and most of the states are fragile, if not failed (the case of Somalia), thousands of peoples are moving (legally or illegally) within and from the region to the rest of the world. In search for a better life or sometimes looking for protection and asylum, millions are incessantly roaming to the neighboring countries and the Arab and Western world. Meanwhile, contrary to their expectations; the migrants who went elsewhere outside the region are exposed for exploitation, often involving forced labor and prostitution. Year after year, the number of migrants especially those who cross the Mediterranean Sea are increasing in an increasing rate. Though countless young and productive peoples particularly from Eritrea, Somalia and Ethiopia are sinking in the seas and oceans and slaughtered by extremists, migrants are still moving across the borders. Sadly enough, despite the severity of the problem, the reaction of the respective states, the regional organizations and the international community remains insignificant. Thus, this study is aimed at critically analyzing the human security situation, the cause and extent of migration and the illicit human trafficking in the Horn of Africa. To address the objectives of the study, both primary and secondary sources of data will be collected. After amassing all the necessary data, descriptive and inferential statistical methods of analysis will be utilized to analyze and interpret the collected data accordingly. Finally, based on the findings of the study, constructive policy recommendations will be provided.

**Assertive Foreign Policy in a ‘bad neighbourhood’: Eritrean
Foreign Policy Making**

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The paper will interrogate Eritrean foreign policy making processes since independence. The paper analyses Eritrea’s role in the region, ranging from constructive engagement to the

country's various conflicts with all its regional neighbours, including the 1998–2000 war with Ethiopia, and Eritrea's wider global attempts at diplomatic and foreign policy engagement. The paper argues that while Eritrea's assertive and often rather undiplomatic foreign policy overtures are partly to blame for the country's negative image as an international actor, any attempt at developing an independent foreign policy by Eritrea needs at the same time be understood within the wider context of the Horn of Africa and the Ethiopian ambition to act, and maintain the status as regional hegemon. Thus, Eritrean foreign policy objectives were always bound to run into problems once they diverged from Ethiopia's own interests. In addition, Ethiopia became an increasingly important actor in the global war on terror and its manifestations in the Horn of Africa, thus its interpretation of and intransigence over relations with Eritrea became the dominant representation of Eritrea as an inherently belligerent state. The latter has been re-enforced by the recent refugee-movements from Eritrea that allows Ethiopia to present itself as a peaceful safe haven and welcoming nation. Such a reading not only neglects the fact that Ethiopia's refusal to adhere to an international ruling concerning its border with Eritrea provides the prime justification for Eritrean mobilisation policies. It also obscures repressive dynamics within Ethiopia itself and how those have resulted in distinctly un-peaceful modes of international engagement.

Biology and Sociology: Can African Genome Data Mend the Fences?

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A presumed disparity between human biology, social and political traits dominated wide circles of thoughts over the past decades. This was largely fuelled by the massive abuse of reductionist and

empiricist scientific doctrines in biology before, between and during the great wars of the twentieth century. The domain of social and behavioural biology henceforth often became almost a taboo. There is some retraction now, however, from such rigid conventional stands in favour of accommodating potential influence of biological underpinnings on some social and political traits, with the understanding that some of these associations might be incidental rather than causal (What are humans after all but biological entities?).

In this presentation we shed light on how genetic information helps to explore aspects of social organization, tapping yet unvisited chapters of human history while revisiting and scrutinizing the acute crisis in terminologies. We escort example of statehood uprising out of the primordial social organization and large communities that followed on the steps of agriculture and pastoralist practices, showing how genetics can shed light on the timing and nature of these pivotal events that remain to influence contemporary human culture, while laying to rest misconception and false narrations of African and human history.

Creating Social Justice in Eritrea: The Role of an Integrated Early Childhood Care and Development Program

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The Government of Eritrea launched the Integrated Early Childhood Care and Development program (IECCD) as a project in September 2000 with a fund of US\$ 49 million. The objective of the programme was to promote the basic needs for a healthy growth and holistic development of children under six years of age, children in primary school age, and children in need of special protection, through the provision of services and support in health care, early education, cognitive stimulation and social protection and affection.

The research paper discusses the Eritrean concept of social justice and the IECCD program and explores the relation that exists between them. The discussion on social justice expands on the major components of this principle focusing on self-reliance. The deliberation upholds the view that the economic, social, cultural and biological benefits obtained from IECCD program can create a balanced and sustainable economic, political, social and cultural development as envisaged under the principle of social justice. It assists in the development of an equitable society through a fair start in life and levelling the playing field. The practical case for consideration under this paper is how IECCD programmes can contribute to the attainment of social justice in Eritrea. It argues that since Eritrea adheres to the principle of social justice, implementing IECCD programme can facilitate the realization of this principle. The Eritrean experience in implementation of IECCD program for eight years demonstrates its viability and encourages further interventions to achieve the desired objective. The challenges confronted and lessons learned during the implementation are critically analyzed. Based on these findings the paper proposes a way forward for a sustainable IECCD programme under community ownership.

The Case of Chinese Constitutional Polity with Chinese Characteristics: Can China and Eritrea Dialogue?

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Eritrea shot to fame for its protracted and unremitting struggles for independence and self-determination three decades ago. After independence, Eritrea made a decision to focus on promoting economic development, political reform and achieving social fairness and justice with profound success. Today, Eritrea is trying to nurture a constitutional polity that conforms to national conditions and social systems with substantive emphasis on the

rule of law. A major concern is that Eritrea has contended with international community pressure for democratization based on universal values that may not necessarily resonate well with the local conditions. China was at this juncture after the 1840 Opium War. People with lofty ideas tried to rejuvenate China by transplanting various modes of the rule of law, but were unsuccessful due to various historical reasons. But since the founding of the People's Republic of China in 1949, the Communist Party took the road of building a socialist country with Chinese characteristics and governed by the rule of law. More importantly, China was able to invent the principle of people's "democratic dictatorship" which has become a Chinese expression of democracy. In addition, the party has also developed and improved a constitution-centred socialist legal system with Chinese characteristics that guarantees the uniformity of the state's legal system and yet adapts to different conditions in different regions. This paper examines, with a Chinese lens, to what extent can Eritrea build its own democratic concept with Eritrean characteristics and still govern by the rule of law. How the principle of democratic centralism which forms the basis of political power in China can marry with Eritrea's governance will be a concern of this paper. China has developed a constitution-centred socialist legal system with Chinese characteristics. What lessons for Eritrea?

Capitalism as “Profit Chameleon”: The Political Economy of African Out-Migration and Refugee Crisis

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The African continent had unforeseen vicissitudes in its socio-economic structures, by external interventions, for the past few centuries, which not only stagnated the indigenous developmental system, but also contributed enormously for the strengthening of

European capitalist political economy. Such structural disturbance has led to out-migration of huge population, mostly forced, according to the needs and actions of European capitalism. As Walter Rodney emphasized, the political economy of African underdevelopment went hand-in-hand with the political economy of European development. Profit being the prime axle point, capitalism changes its hue accordingly, by attracting the necessary labour, or repelling it, to maintain the enhancing profit margin. Thus, the structural linkage between Europe and Africa, decided the nature and extent of out-migration (including slave trade) and its overall outcome accordingly. The changing nature of labour demands, market expansion, and resource for capitalist production, at every point of time, influences and changes the structural linkages. So, the contemporary European refugee crisis needs to be comprehended holistically, looking at the structural linkages and its nature historically. The domestic conditions, which include internal war, political instability, economic crisis and other reasons, were highlighted by many intellectuals, ignoring the structural moorings between Europe and Africa.

This paper will try to ascertain the “*Profit Chameleon*”² nature of capitalism and outmigration as an epiphenomenal outcome of this character of political economy. It will attempt to trace the structural underpinnings between Africa and Europe pre-colonialism, during colonialism and post-colonialism. Further, the paper will critically evaluate the linkages between underdevelopment and out-migration in depth, to understand the present refugee crisis and the responses from capitalist states. The theoretical framework of this paper will be the capitalist political economy and its changing nature historically to sustain its increasing profit. This paper will be based on secondary source of data and uses the critical review methodology to understand the

² Changing its nature accordingly to increase the profit constantly

out-migration from Africa and refugee crisis in Europe over and above the superfluous explanations.

Investment Protection in Eritrea: Law and Practice

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Ensuring legal protection for its investment is a principal concern for any investor considering an investment in a 'host' state. Host states are equally concerned in making sure that investors would not be discouraged from investing in their economies. Therefore, the host states give out investment guarantees to investors to gain their confidence. Investment guarantees offer protection against political and economic risks to an investor.³ Eritrea has also managed to guarantee investments through investment legislation (Investment Proclamation No. 59/1994), through signing BITs (Bilateral investment treaties) with other countries and by ratifying investment guarantees agencies like the MIGA.

In practice, however, Eritrea has faced significant difficulties to implement and enforce the investment protection principles due to many reasons. There were some instances where the expropriation proceeding provisions in the civil code were not observed and thereby putting the legality of expropriation in question; and where foreign investors were unable to convert local currency returns such as profits, principal, interest, royalties, capital, and other remittances into foreign exchange for transfer

³ Heike Drillisch and Nicola Sekler, *Investment Guarantees: Concept, Critics and Alternatives* (Büro Berlin: World Economy, Ecology & Development Assoc. WEED, 2004) 1; the risks encompass the following possible events (a) Nationalization, expropriation or measures amounting to expropriation, (b) Violation of legally binding commitments on the part of government or government controlled bodies (breach of contract), (c) War, armed conflicts, revolution and rebellion, (d) Impossibility of converting currency and (re-) transfer of capital.

outside of Eritrea. The competency of the current Eritrean Investment Centre (EIC) is also questioned because the office lacks the necessary institutional setup as enumerated in the Investment Proclamation. A guarantee for foreign investors found in Article 5 of the investment proclamation, which guarantees foreign investors that they can get import and export license if there exist a BIT between Eritrea and the investor's home country, is also not respected. The researcher has also identified further hindrances to investment in Eritrea, starting from access to financial sectors of Eritrea to the lack of basic investment facilitating institutions (like the one stop shop) and the effect of not having adequate investment guarantees in the Free Zone Proclamation. The researcher finally proposed a midway mode of dispute settlement mechanisms were the interests of the investors and the host state would be balanced. A revision of the current Investment Proclamation No. 59/1994 is also found to be essential because the investment proclamation of 1994 was drafted based on the Macro Policy of Eritrea which envisioned an open market economy which is not functioning at this moment. All the above mentioned points have been discussed deeply in this research paper.

**The Eritreo-Spanish Project: A Four Years Geo-archaeo-
paleontological Field Research at the Engle Ella-Ramod Basin
(Eritrean Danakil Depression)**

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The Afar region is well known for its immense contribution in human evolution study. The Engel Ella-Ramod Basin is located at the northern end part of the Rift valley, south of the Buia Basin. It is a new complex of sites with a very good potential of paleontological and archaeological record. The purpose of the last four years scientific field work was to conduct systematic survey and determine the importance of Archaeological, Paleontological, and Geological record of this depression and to conduct paleomagnetic study to assess the chronology of the fossiliferous deposits of the Basin.

A rich record of faunal remains and lithic industry of different chronological scenarios was documented from a Plio-Pleistocene sedimentological record, with a thickness of more than 100 meters. The large mammal fossil record corresponds to large carnivores (felids and hyaenids), elephantids, equids (*Hipparion* sp.), giraffids, bovids (buffaloes, large antelopes, *Gazella* sp.), suids (cf. *Nyanzachoerus*), and others. The discovery of a suid mandibular specimen (Engel Ela B2-1) helps to conduct a biochronological correlation. In this balance, the Engle Ella suid (*Nyanzachoerus*) falls within the Pliocene chronology that is, most probably, between 5 and 3 million-years (Harris and White, 1979; Brunet and White, 2001; Cooke, 2007). This period is crucial for human evolution, as it has been already known in different east African sites.

The stone tool technology from the Basin corresponds to handaxes to the Mode 1 (Oldowan) and Mode 2 (Acheulian) techno-complexes. Quartz was the most used raw material to make artefacts, most of all by means of a unifacial and unidirectional reduction method that allows obtaining flakes with long cutting edges. The Mode 2 lithic assemblages include well-made handaxes.

Taking the geological position and preliminary evidences into account, the Engel Ela Basin, is supposed to provide new information on the evolution and diversity of mammalofauna the Pliocene fossil record (including Hominin), not yet known to science from this region. The Basin has a great potential for offering new evidences completing the known fossil record from coeval well celebrated East African palaeo-anthropological sites (from Ethiopia, Kenya, Tanzania etc.).

Effect of Supplementary Irrigations and Nitrogen Levels on Soil Physico-chemical Properties and Growth and Yield of Sorghum in Hamelmalo Area

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Experiments were conducted to determine the effect of different supplementary irrigations and nitrogen levels on soil physico-chemical properties and growth and yield of sorghum (*Sorghum bicolor L.*) at Hamelmalo Agricultural College. The experiment was laid out in split plot design with irrigations treatments rainfed (I_0), 50% of full irrigation (I_1), 75% of full irrigation (I_2) and full irrigation (I_3) put in main plot and nitrogen treatment with 0 kg N ha⁻¹ (N_0), 50 kg N ha⁻¹ (N_1), 75 kg N ha⁻¹ (N_2) and 100 kg N ha⁻¹ (N_3) put in subplots in three replications. Plot size was 4 m x 3 m with row and plant spacing of 0.60 m and 0.20 m respectively. There was a significant effect of irrigation on soil bulk density, moisture content, grain yield, above ground biomass and plant height. In September, moisture content three days after irrigation was 0.16 cm³ cm⁻³ in I_3 whereas it was 0.08 cm³ cm⁻³ in I_0 . Soil moisture in I_0 was close to wilting point. Bulk density was highest (1.56 Mg m⁻³) in I_3 and lowest (1.44 Mg m⁻³) in I_0 . There was no influence of applied nitrogen on bulk density and moisture content. There was a significant effect of nitrogen and interaction

effect on grain yield, above ground biomass and plant height. Significantly higher grain and biomass yield (6900 kg ha^{-1} , 9950 kg ha^{-1}) was obtained in I_2+N_2 and lowest was (2230 kg ha^{-1} , 5670 kg ha^{-1}) in I_0+N_0 respectively. Changes in soil chemical properties were not significant. Roots tended to concentrate in surface layers at high irrigations. But roots penetrated deeper than 1.4 m under deficit irrigation conditions. Application of 75% of full irrigation and 75 kg N ha^{-1} was sufficient for optimum yield of sorghum in the soil and irrigation conditions of the experiment. Benefit to cost ratio (B: C ratio) was highest in I_2+N_2 . The treatment that received 75 % of the full irrigation and 75 kg N ha^{-1} showed the highest performance in all the studied parameters and recorded highest economic return from the experiment without any negative impact on the soil environment.

**Interconfessional Dialogue and Traditional Litigation in the Early
20th Century Eritrea: Historical Witness of an Unpublished
Manuscript**

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The paper discusses the role of interconfessional encounters in the religious history of Eritrea and stresses the importance of their investigation from an interdisciplinary approach. Based upon an unpublished manuscript of the work entitled “Dialogue between Orthodox and Protestant” (EMML 1074) written in Däbrä Bizän in 1910, the paper draws attention to a wide range of issues the text bear witness of.

This until now neglected text not only presents rich material on religious, intellectual, political and legal history, but also witness about the emergence of a theological culture of interconfessional discussion which is to be investigated in its historical and social context. A special attention thereby is given to an interrelation

between the theological disputes and traditional modes of litigation in the early 20th century Eritrea.

One Belt One Road Initiative: Opportunity and Threats for Africa
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One Belt and One Road (OBOR) Initiative is how China is trying to redefine its trade and diplomatic relation with neighbor countries but also Africa and Europe. Through new railways (one Belt) and new investment in maritime routes (one road) china wants to support exports and reinforce its position on the world stage. OBOR can be seen as a reaction to TTP and TTIP that could isolate China while strengthening the pivot position of The US. The largest part of investment will be developed in Asia. Railways will go through Central Asian countries like Kazakhstan. Also the largest investment on the maritime routes will remain in Asia. However Africa will be affected directly and indirectly by these new investments. In this presentation I will briefly describe how OBOR could change trade and investment in Africa. I will analyse infrastructure investments, trade issues, finance instruments, Foreign Direct Investment and the role of Institution. As far as concern railways, Africa will not be really involved being a China Europe connection. However it is possible that some routes will arrive in Middle East. Investment in new port infrastructure will be much more important for Africa. There is investment already planned in Egypt but also in North African countries like the Port in Algiers. The announced settlement of a Chinese military base in Djibouti shows the importance that China is giving to this part of the world. The development of AIIB and of the BRICS bank could give new investment opportunities for African countries and firms.

This new initiative, if well managed by African countries, could be a great opportunity to increase trade relations with Asia and Europe and could be an engine of development for the future. This cannot be taken for given not exploiting this new opportunity could marginalize the position of many countries.

Negotiating with Foreign Capital: the Relationship between Imperial Ethiopia and Eritrea after the End of the Federation in the Archival Documents of Banco di Roma, 1962-1974

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The paper aims to offer a new perspective on how the political and economic relations between Imperial Ethiopia and the then Eritrean province changed after 1962. Banco di Roma was the main banking institute in Eritrea and played a critical role in supporting the modern sector of the economy, dominated by the Italian business community, but the bank gradually moved the core of its activity towards Addis Ababa after the end of the federation. The dialectics between the Italian management in Rome, the local branches of Banco di Roma in Eritrea, and the ruling elite in Asmara and Addis Ababa provide fresh insights on the underlying reasons of this shift, the uneasy relationship between the National Bank of Ethiopia and several Eritrean authorities in Asmara, and the root causes of the deterioration of the Eritrean economy in the decade of the 1960s and early 1970s. Methodologically, the paper relies heavily on archival documents collected in the archives of UNICREDIT-Banco di Roma in Rome and Milan and, to a lesser extent, the archives of the International Monetary Fund in Washington DC.

Developing a Model for Learning to Read in African Indigenous Languages

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Learning to read should not be a complicated process for young children; it should be fun and exciting. However reading difficulties in early childhood continue to plague the African continent. While we all agree that lack of adequate resources are a major factor affecting children, there is a key issue that recently has been brought to light: the role of language in early reading acquisition. Current research continues to support the knowledge that early reading acquisition is most effectively taught in the children's mother tongue and the teaching of these skills to children in foreign languages such as English is a leading cause of reading difficulties.

This paper explores a reading model based on both theoretical and empirical evidence, which can be used to guide teachers on how to teach early reading skills in indigenous African languages, including Nilotic and Cushitic languages, which have long been neglected with respect to early reading in Africa. In order to use appropriate and effective teaching methodologies teachers need to possess language competence in both speaking and understanding of the rules which guide the respective languages and at the same time understand the structural features of the language in both reading and writing. Furthermore, in multilingual environments, teachers need to have clear knowledge on the divergent codes that affect the language and reading acquisition.

Current educational solutions are embracing the use of ICT tools as a means of bridging the literacy gap that exists globally and in Africa specifically. Despite existing challenges, this is a move in the positive direction. Nonetheless, the effectiveness of ICT literacy tools, e.g., GraphoGame, in reading acquisition will be diminished if the critical issues affecting language and learning are not understood clearly. In Africa, language groups vary with

respect to their code composition. Several Bantu languages are better placed because extensive research into the language structures have been explored and accepted. Additionally, Bantu languages fall under the category of consistent languages, i.e., they have a clear grapheme-to-phoneme correspondence and are generally straightforward in early reading acquisition. The Cushitic and Nilotic languages have been made rather complex because of the use of the Latin alphabet and disregard for their accentual tones makes teaching early reading in these languages difficult. Despite the existing challenges, it is necessary that teachers of early readers are guided by basic principles that will assist in improving efficiency in early reading acquisition and minimizing reading difficulties.

Academic Research, Intelligence Gathering, and Foreign Intervention: Academic Imperialism in the Case of Eritrea

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In September of 2014, a string of articles and letters were exchanged between academics who claim to be experts on Eritrea and those who had initially accused them of using their positions to exercise their white authority to have full monopoly over knowledge production on Eritrea. This controversy has sparked my interest to look deeper into the issue to see how the texts of these exchanges can demonstrate how and why certain researchers can promote a certain hegemonic discourse on a postcolonial country and get away with it.

How does silencing and refusing engagement with ‘the Other’ transmute academic research into academic imperialism? In my research, I analyze how the controversy is framed by the various actors, as well as how this controversy relates to reality by using postcolonial theory and other theories related to structuralism, poststructuralism and postmodernism.

I examine this controversy to see if it is an act of epistemic knowing/violence and if the silencing of the Other disguises new forms of imperialism. I explain how a discourse of pre-independent and postcolonial Eritrea, because of hegemony and the politico-economic regime of truth that reigns over the Horn of Africa, is being repeated today through contemporary scholarship by the same hegemonic elements. This research demonstrates how academic research that perpetuates hegemonic power, while also denying agency to the subjects of the research, can be considered surveillance and intelligence gathering, especially if academics use their academic power to consult against the interest of the Other and advocate foreign intervention. I also look into whether mimicry is used as a strategy by academics to make their work look authentic and how mimicry allows them to write a distorted discourse about a country and peoples in the periphery.

The theoretical framework of this research is revolved around postcolonial theory, feminist theory, discourse theory, and legitimacy theory, including that revolved around Diaspora issues and Diasporas as transnational actors. This research is an empirical study using qualitative research methods of discourse and text analysis.

Estimating the Population Density and Trend of Soemmerring's Gazelle in Hrey Gereb (Buri Peninsula), Northern Red Sea Zone, Eritrea

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The three sub species of soemmerring's gazelle (*Nanger soemmerringii*) are endemic to the Horn of Africa. Eritrea too harbours this species. This research was conducted to study the Population Density and Trend of the Soemmerring's gazelle at Hrey Gereb, Buri peninsula. Line transect method was used to

assess the population density of the gazelle. Thirteen routes, with variable length, each route being 1.08 kilometres away from the other in a width of 0.54 km from both sides were used. The transect lines were designated according to the longitudinal lines of the earth at Hrey Gereb for the vehicle and on foot survey. Positions were monitored using GPS and earth Google images. The survey was conducted during the early morning from 6:00 am up to 10:00 am and in the afternoon from 4:00 pm up to 6:00 pm. These hours represented the most ideal grazing and browsing time. A total of 272 soemmering's gazelle, more than 80 Dorcas gazelle, and more than 60 ostriches were recorded. In addition to these animals, hyenas, foxes, Arabian bustard, were among the recorded species during the survey. Perpendicular distances were computed indirectly. The data was analyzed using LINE TRANSECT PROGRAM DISTANCE. The results revealed population density of 0.992 individuals per sq. km (with 95% confidence interval 0.64489 - 1.5263). With the assumption that populations are evenly distributed over the study area, then, population estimate can be extrapolated from the result. Soemmering's gazelle is expected to be present in an area of approximately 1000 km² and is believed to number >700. Females group containing juveniles and of adult males were the two main social units. Herds of 5-8 were most common. However, herd size ranged from 1-12 individuals. Population trend is slightly increasing since the last seven years due to the efforts made by the Ministry of Agriculture, Government of Eritrea in collaboration with the local community.

Previously these animals were widely distributed along the Buri peninsula; today they are found in confined and scattered areas. Prolonged drought, predation, hunting and competition are some of the reasons that contribute to the decline of these species in Buri peninsula, particularly at Hrey Gereb.

**Conservation Challenges on Eritrean Cultural Heritage:
A Case of Qohaito and Matara Archaeological Sites**

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Eritrea is endowed with remarkable and diverse archaeological resources spanning from early prehistoric to historical periods. The country's strategic position in the development of humankind and of later civilization as well as the diversity of its populace renders it a fertile locale for cultural heritage. A rich variety of archaeological remains is largely spread along the historic trade route of the once famous and strong civilization that flourished in the highlands of southern Eritrea and northern Ethiopia (Anfray 1994). As important economic and political centres, Matara and Qohaito were situated in the Eritrean highland along this trade route. Subsequent to the fall of the civilization, however, these ancient cities ceased to function and failed to support life hence were abandoned, leaving behind impressive archaeological heritage including town ruins, water reservoirs, burial monuments and stele among others. The ruins symbolize great achievements, prestige and authority to an African civilization reflecting a true testimony to historical past. Given current situation, the survival of these sites is endangered and their security so precarious that their preservation is at stake. This paper portrays the challenges Qohaito and Matara archaeological sites are facing and proposes remedial solutions to curb or minimize the crisis.

Women's Political Participation after Independence

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This research paper is on the political participation of women after independence. As elsewhere in the world, the history of women has been that of marginalization and exclusion from important

public arenas and relegation to the private sphere doing activities related with reproduction. This is because the traditionally prevailing division of tasks within the world distinctively allocated all the tasks related to the public domain to men and that of the private sphere to women. Yet it is well known that there is a pivotal political role for women as they consist around half of societies' percentage. So the exclusion of women from political arena and power to influence the decision making is an obstacle from their rights of becoming equal citizens in their country.

In Eritrean case, since the pre-colonial era, the public sphere including the political sector, has been male dominated. The status quo was preserved until the period of Eritrean armed struggle. The social revolution that was in progress with its grand effect on the cultural and social statue has resulted in the large number of women in the struggle as combatants and played various roles within the revolution which was a milestone progress in the participation of women in public sphere and in the inclusion of women in political roles.

As such this paper assesses the aftermath of this laid down ground, in the post-independence era. It analyses the political participation through the spectrum of polices implemented and legislation in perspective of gender sensitive outlook. On its second part it assesses the representation of women in various areas of decision making including various local administration, legislative, executive and judiciary bodies of the government apparatus.

As such this paper uses the theoretical framework of feminist theories and gender analysis on its enquiry of this area. The data used in this paper is both primary and secondary. In the secondary data collection, books, articles and reports are included and interviews are taken as a source of primary data.

Understanding Eritrean Foreign Policy: A Different Approach

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This paper is an attempt of interpreting Eritrean foreign relations through two theoretical approaches: the one of Siba Grovogui and that one of Iver Neumann. The former criticizes the epistemological and ontological roots of International Relations discipline, showing how they are deeply Western-centred and therefore unable to understand non-Western states' role and behaviour. The latter, in his studies on small states, formalizes peculiarities of such actors in world politics. Once Eritrea is conceptualized as a "non-Western, small state" its foreign policy becomes not only more intelligible but also very coherent with a long term strategy for survival in a difficult external environment. These results sharply contrast with most of the analysis in mainstream IR literature, in particular the ones produced by established think-thanks which tend to label Eritrean foreign policy as unpredictable and opportunistic, especially regarding the Horn of Africa's region. The paper is organized as follows: the first and the second parts present, respectively, Siba Grovogui's and Iver Neumann's main findings. The third one summarizes practitioners' and scholars' analysis of Eritrean foreign policy. The fourth part re-reads the same policy using a conceptual framework built on the approaches presented above. The conclusions try to demonstrate how IR studies have so far misunderstood and underestimated the role played by Eritrea in the Horn of Africa.

The Role of Lineages on the Eritrean Plateau

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The presentation undertakes to summarize the theoretical approaches to the study of lineages, as well as endeavours to

understand the past, present and future role of lineages on the Eritrean plateau.

During and after the colonial era, especially in Africa, lineage theories had been abundant in anthropological literature. Great emphasis was placed on the importance of lineages and other kinship groups often neglecting other social forms. This presentation examines the relevance of lineage studies on the Eritrean plateau and how ethnographic sources account for the roles of *endatat*, *gezauti*, *aditat* and the like. It attempts to understand the role that lineages play in traditional land tenure, the legal and political system. How kinship, economic, political and legal aspects co-exist in the lineage institution. It explores how the institution of dowry conforms to the agnatic kinship system. And finally it poses the question whether the existence of lineages necessarily entail social stratification and warring entities.

Based on my researches of the last 10 years, I proceed to investigate the presently weakening role of lineages. This institution has by all means undergone significant legal, economic and political changes, over the past decades. I question whether lineages have retained any of their roles during the post-independence period or perhaps have other social groupings or political institutions taken over some of its functions.

Lastly, I explore the possibility of a paradigm shift from a patrilinear to a bilateral kinship system and its plausible impact on gender relations, examining, in conclusion, how anthropology is able to assess the changing role of lineages.

The presentation will pose relevant questions and suggest answers based on fieldwork on the Eritrean plateau and available ethnographic data.

Major Consonantal Sound Shifts within the Tigre Language

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Tigre is mainly spoken in the Eritrean administrative zones of Northern Red Sea, Anseba, Gaš-Barka, and in the Sudanese eastern states of Kassalā, El Gadārif, and Port Sudan. Tigre borders and sometimes overlaps with territories inhabited by speakers of the other 8 Eritrean languages. In terms of geographical coverage, Tigre has the largest geographical distribution in Eritrea. The transhumant way of life practised by many of the Tigre people has created interaction among Tigre speakers from the different regions and has probably prevented extreme diversification among the different dialects of the Tigre language. Taking into account the large areas that the Tigre language covers, its interaction with different ethnic groups, and the geographical barriers between the regions, however, it would not be surprising to see certain geographical dialects emerge.

The major difference between the Tigre dialects is the difference between those dialects which do not make a phonemic contrast between the *ʃ* and *ʧ* and *z* and *d* phonemes on the one hand, and those which do make these contrasts. Tigre tribe names mentioned by the medieval Arab historians and geographers, al-Ya'qūbī and ibnḤawqal (9th and 10th centuries respectively), give some clues about the presence of this type of dialectal difference in the Tigre language as early as the 9th and 10th century. The replacement of *z* by *d* in Sabdarāt which is derived from *Sab-zara* 'the people of the place named *Zara*', the confusion between *z* and *d* in *'ad/az* 'village', and the attestation of both *q.ʧ. 'a'* and *q.ʃa*, 'a name of a unidentified kingdom in the territory of today's Tigre people', by al-Ya'qūbī and ibnḤawqal respectively, may indicate that the difference between *-ʃ, -z* Tigre dialects and *+ʃ, +z* Tigre dialects has been maintained since the 9th century.

⁴Houtsma: IbnWādhiḥ 1883, p. 219.

This study made use of data collected from more than 20 Tigre-speaking areas, which included wordlists, interviews, and oral texts. In addition, it reviewed and analysed published and unpublished sources.

The Need for National e-Resources Facility and the ERUNET Plan

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In this age of information and knowledge sharing, the importance of ICT infrastructure is eminent and unavoidable choice. It is believed that innovative ideas evolve where problems are looming. Hence, the innovative thinking in ICT solves problems of scarcity of e-resources and communication medium. The initial drive for this study project is the problems we have for acquiring e-resources for educational purpose in all of our educational communities. The prevailing slow internet connectivity in our institutions of higher education, compounded with the scarce e-resources available for our students and research community, poses the need for a means to optimize the best we can have using the available technology solutions we can adopt. Without the need to reinvent the wheel, we can adopt a feasible ICT solution for our national problems due to the above mentioned reasons, and support our educational system at all levels.

There are some crucial initiatives to equip our educational system with rich educational e-resources over Intranet, while relieving the internet connectivity bottlenecks a great deal of traffic that would otherwise be congesting the route to the cloud. Eritrea Institute of Technology is embarking on ICT infrastructure projects to provide an e-resources rich intranet that would highly support students at all levels in their studies, which will be open for further outreach to others in the national education community. This initiative will be developing offline accessible

educational materials on its Intranet, while integrating video streaming facilities to optimize the accessibility of multimedia resources on the intranet. This study will present the real problems and scarcity areas thoroughly assessed at all levels of education in Eritrea, categorize the areas and relate the solution areas sought to the bigger Eritrean Universities Network (ERUNET) plan.

Gene Xpert of Stool Samples for the Diagnosis of Pulmonary Tuberculosis in Children Less than 15 Years in Hospitals in and around Nairobi

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Globally, Tuberculosis (TB) is a major infectious disease. In 2011, there were an estimated 8.7 million new cases with 6% childhood tuberculosis. The majority of the cases occurred in high TB burden countries like Kenya. Accurate pediatric pulmonary tuberculosis (PTB) diagnosis is a challenge. Symptoms are nonspecific, young children are unable to expectorate sputum samples and the procedures for obtaining respiratory samples are invasive. Thus *Mycobacterium tuberculosis* (*M. tuberculosis*) cultures and smears are often not performed. This study was done to assess stool samples as an alternative to respiratory samples for the diagnosis of pediatric PTB using stool XpertMTB/RIF assay test and, to determine its sensitivity for detecting the DNA of MTB in stool. The study was a laboratory based cross-sectional prospective design. Children less than 15 years of age, who attended Gertrude's Children's Hospital Nairobi and Kiambu District Hospital and who were suspected to have pulmonary tuberculosis on clinical grounds from September 2013 to April 2014 were included. Stool specimens were collected after consent was obtained, from their parents or legal guardians. Data of the clinical features and the results of the routinely done tests by the hospitals were obtained from the filed medical records. A total of

91 stool samples were collected from pediatric cases where the median age was 3. Stool for Xpert was processed in two ways, direct and prior extraction of DNA using QIAGEN stool DNA extraction kit. Out of this, 53 (58.2%) had sputum ZN smear microscopy. Six (11.3%) of them were confirmed smear positive for PTB. Stool Gene Xpert tested positive in all the six smear positive children as well as four (7.5%) smear negative patients. Stool Gene Xpert with 100% sensitivity and 89.36% specificity had significant association (P value = 0.000). Thus, this study reports that *M. tuberculosis* DNA can be detected in stool using Xpert testing with a higher sensitivity than sputum smear microscopy. Therefore, stool which can easily be obtained are an appropriate alternative sample for the diagnosis of PTB using Xpert assay for children unable to give respiratory samples. Furthermore Xpert turn round time is less than two hours.

Resources Endowment and Growth Model for the Eritrean Economy

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Despite all of the challenges, Eritrea is a highly prospective country and has promising resource endowment which includes: mineral resources, agriculture, fisheries, energy resources (oil and gas, wind, geothermal, and solar) and tourism.

These resources can be used as the primary drivers of the economy, leading to the rapid and sustainable economic growth of the nation, which will lead to rapid infrastructural development, industrialization and diversification into secondary and tertiary economic sectors. However, unless an integrated study of the resource endowment and their interrelationship is made, it is impossible to make informed decisions of economic priorities as

well as appropriate areas for development. In the absence of such an integrated study it would lead to pitfalls in economic development. The Eritrean Government is cognizant of the fact that there are immense challenges to be surmounted to ensure a vibrant economy in Eritrea. Nevertheless, if the exploitation of these resources is going to be accelerated and the nation is going to maximise its benefits there are several issues that have to be addressed urgently.

This study aims to recommend appropriate national policies for the effective development and sustainable utilization of natural resources, prepare, and review indicative national plans to ensure that all reasonable issues are addressed, help secure comprehensive data base for national decision making, define economic zones of development based on the unique economic endowment at National and Zoba level, create platform for discussion to identify critical issues and develop strategies to address them.

This study is based on review and analysis of pertinent documents and reports and experience gained during various research and consulting works carried out aided by use of Remote Sensing, DBMS (database management system) and Geographic Information System (GIS), which form perfect tools in integrating and analysing various geo-referenced data. This has helped in selecting the best sites and/ or areas for optimizing investment decisions and appropriate areas for development and for further study.

Mining and Sustainable Development: Implication to Social and Environmental Issues in Eritrea

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Eritrea is rich in mineral resources and since independence substantial investment in mineral exploration has been on-going resulting in the discovery of important Copper-Zinc, Gold and

Potash deposits, which has started to play a major role in the economic growth of Eritrea.

The economic mineral deposits so far discovered can be classified into three categories: Bisha and Zara projects, where mining has already started; Emba Derho-Adi Nefas, Debarwa projects, which are embarking into the mining phase and Colluli Potash deposit, which is in an advanced stage of feasibility study.

The main aim of this study is to compare the Bisha, Zara, Emba Derho-Adi Nefas, Debarwa and Colluli deposits based on type of the ore deposits, their social and environmental impact, and the implications to environmental, fiscal and social policy issues in Eritrea.

The comparative analysis will focus on type of mineral deposits based on factors such as the mine grade and tonnage, which account for a more significant part of production costs as well as the environmental and social impact and level of existing infrastructures. Based on the comparative study, various options are explored in terms of Socio-environmental management best practices, environmental monitoring, diverse tax base, Government equity participation, and mutually beneficial partnerships between the state, the private sector, local communities and other stakeholders. This is meant to create a transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development.

Self-Reliance and Transnationalism: A Study of Intersecting Discourses and Practices in Eritrea

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This paper will assess the impact of texts by political actors and the top-down effects of culture construction as specific values are perpetuated and transmitted in political discourse. Political discourse analysis as discussed by Van Dijk (1997) is the central

method of this study. The key themes are participation, inclusivity, isolation and identity construction and will be addressed through the analysis of five key texts, and contextual evidence to support the arguments made. These texts have contributed to constructing and propagating a culture based in self-reliance. We can interpret from the texts as a whole that 'Eritreanism' is not bound to a location, ethnicity, religion or language, but rooted in collective participation. A unified national identity is hinged on the liberation struggle, which exemplifies the Eritrean culture of self-sufficiency and independence. Transnationalism and self-reliance inevitably intersect as transnationalism is the means by which a collective 'self' is created and it is through participation in 'nation-building' that Eritreanism in this sense is expressed.

The Role of Africa's Diaspora in Development: Lessons from Eritrea

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As Africa's population grows, the role of its diaspora in supporting and advancing the continent's development will also grow, both in size and influence. To understand the magnitude and reach of African Diasporas in development, a historical review of Eritrea and its Diasporas in North America, Europe and the Middle East serves as a useful example of effective engagement, with a variety of lessons for global diaspora policies and engagement.

Diasporas are increasingly recognized as important actors and critical stakeholders for development and peace in their countries of origin and their country of residence. More countries are developing long-term diaspora policies and engagement strategies focused on their relationship with these populations. Globally,

Diasporas play a vital role in a country's growth. Economically, they help drive planning and growth through investments, philanthropy and tourism. They also support families through remittances for livelihood and supplemental assistance. Socially, Diasporas are important and valuable cultural ambassadors. They preserve and represent various aspects of a country's identity, such as language, food, music, art, history, and recreation. In times of war and peace, Diasporas organize in support of their communities and countries. Through grassroots mobilization, fundraising, and advocacy, Diasporas are powerful actors in the realm of political and civic engagement.

Today, Africa is facing its largest growth rate as its population is set to double from one to two billion by 2040. Considering the standard patterns of global migration and development, this growth will also create a larger African diaspora population. This impending growth requires an understanding of diaspora networks, their role in advancing the continent's development, and national and international diaspora policies. Despite its relatively young history, one of the strongest African diaspora examples is with Eritrea. Its history of colonialism, federation, annexation, war and independence has uniquely positioned the country to develop a nuanced and sophisticated relationship with its diaspora. The relationship between Eritrea, its diaspora and the international community can offer multiple countries lessons, best practices, and recommendations for ways forward.

**Promotion of Endogenous Knowledge through Scientific
Research is Fundamental to Local Development: An
Anthropological Perspective**

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Research indicates that over many centuries, human societies have been producing knowledge and strategies enabling them to

survive in balanced relations with their natural and social environment. This implies that all of cultural groups have their own endogenous knowledge applicable for local issues with survival values. This gives identity to the owners of these endogenous knowledge but also power to participate in local decisions.

Patman (2003) writes, there is a long tradition in Africa of reaching decisions by unanimous consensus, with minority voices given a fair hearing. Cheikh Anta Diop (1988) emphasizes the need to build African human sciences, while Foucault (1988) suggests, there is gap to fill by discovering the “Archaeology of Geography”.

This paper tries to highlight that endogenous knowledge development is fundamental to sustainable local development as such knowledge produced in local peoples' lives' experiences applies to the land and local conditions.

Data for this paper is from research in highland Eritrean villages, where according to local customs a mother of twins is privileged with using conserved pasture land. Data will also be used from research in Gash Barka among the Kunama.

From Adulis to Matara: A Road to the Highlands

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For thousands of years, the people who occupied the diverse regions of present-day Eritrea, and of the Northern Horn of Africa in general, have interacted with each other by means of a system of medium- long-distance routes that overcame the separateness of this territory partly due to its physical diversity. Along these roads were moving not only goods, but also people, ideas, knowledge, in a long process of cultural interchange that favoured the emergence of complex societies in these regions in

the early 1st millennium BCE. One of these roads, the one linking Adulis and Matara, has played, starting from the 1st century CE, an increasingly prominent economic role. It was along this route, in fact, that a wide range of merchandises coming from the Mediterranean regions to the sea port of Adulis reached the plateau. Along the same road, the goods and products of the internal regions of the northern Horn, following the opposite path, got from the highlands to the sea.

This paper will attempt to provide a tentative reconstruction of this ancient route by combining historical, archaeological and geographic evidence and by using advanced tools in spatial analysis and territorial studies.

Foregrounding Italian Colonialism: New Literary Representations from the Horn of Africa

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Literary accounts of Italian colonialism in English have been slowly trickling into academic and mainstream cultures. While novels by Somali literary giant Nuruddin Farah have always engaged with Italy's colonial excursions into the Horn, the topic's recent re-entry into the literary scene has potentially interesting effects. Due to the unique economic and media power wielded by the Anglophone publishing structures, Italy is forced to engage with its own silenced history and pressures cultural institutions to open up the space for “migrant” writers that have been marginalized in their own country. In turn, it also pushes academics and intellectuals working in postcolonial studies to explore a previously ignored iteration of a European colonialism. This paper will look at Nadifa Mohamed's *Black Mamba Boy*, *The Conscript* by Gebreyesus Hailu and *Two Weeks in the Trenches* by Alemseged Tesfai to reflect on ways in which the discourses on Italian colonialism are being revived with special

attention to how they shape responses to the ongoing refugee crisis as it worsens on Mediterranean shores.

Crime Prevalence in Eritrea: A Comparative Analysis of Crime and its Impact on National Development

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Several studies conducted by UN and other agencies confirm that crime is one of the major hindrances to development in Africa. The studies show that crime is eroding Africa's social and human capital by degrading quality of life and forcing skilled workers overseas, whereas fear of crime is impeding the development of those that remain. In the same manner, crime is believed to have been driving business away from Africa: both foreign and domestic investors consider crime as sign of social instability and as a cost increasing factor of doing business. Out of this, corruption is recognized by the World Bank as the greatest obstacle to development, not only in Africa, but globally. By destroying the trust relationship between the people and the state, crime also undermines the ability of the state to promote development and democracy. These well-established facts demand high consideration in developing countries such as Eritrea. They need to be considered in all development strategies as proactive measures are more effective than the reactive ones.

In Eritrea, it is generally claimed that crime prevalence is low, and it seems difficult to recognize crime as a major hindrance for national development endeavours. However, in-depth researches, that would show the correlation between crime and development, have not been conducted so far.

The International Conference on Eritrean Studies 2016 seems to be an ideal opportunity to show the country's general crime situation by providing the reported data and analyzing them against international standards. In doing so, reported serious

crimes will be studied, compared, and analyzed against international parameters, and some national political and economic guiding principles. Ongoing national crime prevention and investigation strategies will also be touched, leading to concrete recommendations that would pave the way for their consideration in future development programs. Some surveys and interviews can also be conducted to fill the gap between the cause and effect, taking into consideration the availability of time and fund.

Determinants of Chinese Investment in Africa

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This study investigates the determinants of Chinese outward foreign direct investment (OFDI) in Africa. The study covers 37 African countries over a period of six years from 2005 to 2010. The study used a fixed effects model and differenced GMM for empirical estimations. Using the Stock of Chinese investment in Africa, the study found that Chinese investment in Africa is not primarily focused on natural resource seeking. This result is robust even after we isolate oil as a distinct product for resource seeking. The results suggest that Chinese investment is attracted by absolute market size in host countries. The Chinese preferentially seek out larger markets within Africa. However, the study found no evidence that the Chinese are attracted by the purchasing power of the host nations. It was also found that past market growth does not influence Chinese investment decision in Africa. Better infrastructure is found to be essential, precisely telecommunications infrastructure. Chinese investment is found not to be deterred by institutional risk factors in Africa, given that most of their investment is state owned enterprises. This distinctive feature about the Chinese sets them apart from western foreign direct investment which is pre-conditioned on

institutional factors such as corruption and accountability. In this regard, Chinese OFDI can be considered as an alternative to conventional FDI. There is also no feedback mechanism between poor institutions and natural resources, suggesting that the Chinese are not natural resource seeking in poor institutional countries.

Land Disputes in Southern Region of Eritrea

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This paper will examine the problem of land disputes in the southern region, which is highly populated and known for its environmental degradation. It will explore the causes, nature, consequences and mechanisms of resolving them by placing them within their historical, social and political contexts in the land tenure system in the area. In this area of the country, where the society is made up of settled peasant cultivators, the village is the basic land owning–community in which land is communally owned. Land is the sole means of subsistence, hence the means of life. It is a source of dignity and identity. Over the years the strong link between land and society intensified people's attachment to land which finally resulted in the development of strong social and cultural values to land.

Yet over the decades, because of the different historical, socio-economic, political contexts and policies of the colonial powers, the land holding/tenure system, environmental degradation and population density, land resource became extremely scarce. As a result of all these, land has become a source of competition and struggle for existence. It is a kind of property to be seriously defended. Especially during drought periods, disputes on the issue of grazing and water sources are very common.

The nature of this study will be exploratory and descriptive as no study of this kind has been conducted in the region. The chief

purpose of this study is to give a holistic description and investigation of the land disputes in the region, which makes use of detailed narrative of key informants. Primary data will be sought from two main sources: interviews (unstructured and semi structured) with regional administration, sub regional administration, party officials, ministry of land, water and environment and village administrators and elders if the land dispute is of a serious type. Document analysis will also be conducted. Secondary source written on similar topic will also be referred to enrich the literature. During interview all the ethical considerations will be considered.

Oral Poetry Research Methodology: A Case Study in Eritrea

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The research methodology in question mainly focused on the two related oral poetic forms of the Tigrinya language called *massé* and *melqes*. Yet for the title, using the generic term “oral poetry” has been preferred simply for the sake of intelligibility.

The *massé* and *melqes* research methodology evolved essentially from the nature of this particular poetic genre. A number of facts about *massé* and *melqes* were determinant factors in employing a methodology suitable to the study. The facts that *massé* and *melqes* are oral and had existed only in the form of memory; that *massé* and *melqes* are performed on the occasions of real life events which gives them specific identities in terms of time and space; that *massé* and *melqes* are social commentaries about particular personalities, events and situations which makes the oral poetic forms historical; that every *massé* and *melqes* has a background in the context of which each piece is composed; that authorship of *massé* and *melqes* needs to be strictly verified not only for the purposes of copyright but also for a better understanding of the poetic works; that the composers of the bulk of *massé* and *melqes*

had long passed away with their works retained in the memory of depository tellers putting the researcher at two, three, four, five or more removes from the author; and that *massé* and *melqes* are repositories of rich vocabulary, figures of speech and expressions necessary for the revitalization of the Tigrinya language; were seriously studied in order to develop an appropriate research methodology.

Since there was no similar research conducted in the area of oral poetry on such a wide ranging scale in Eritrea, this study had very little reference in terms of devising a workable methodology. The *massé* and *melqes* research endeavour, therefore, had to pioneer a research methodology which through practice and evaluation would prove to be effective.

The paper attempts to map out the development and application of the *massé* and *melqes* research methodology as it evolved empirically from a fieldwork experience extended over a period of more than ten years.

Analysis of Women's Empowerment Process in Eritrea

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Longwe defines women's empowerment as enabling women to take an equal place with men, and to participate equally in the development process in order to achieve control over the factors of production on an equal basis with men. Beijing Declaration clearly put it that 'women's empowerment and their full participation on the basis of equality in all sphere of society, including participation in the decision-making process and access to power, are fundamental for the achievement of equality, development and peace' (paragraph13) (cited in DAC, 1998: 10). Eritrea as signatory of this convention is actively engaged in the process of women empowerment. The analysis will focus on what initiatives are going on women's empowerment in Eritrea,

equality in practice and development interventions, degree of commitment to women's equality and empowerment. Assessments will be made on levels of recognition on women's issues and overall actions towards women's empowerment objectives.

The analysis will use Longwe's Framework that centres on the concept of five levels of equality, which indicate the extent to which women are equal with men, and have achieved empowerment. The levels of equality can be used to assess the likelihood of particular development interventions promoting equality and women's empowerment. The levels of equality are: welfare, access, conscientization, participation and control on hierarchical as well as progressive levels. In addition, analysis will be made based on Longwe's three levels of recognition of women's issues in developmental interventions; namely negative level (make no mention of women's issues), neutral level or conservative level (recognize women's issues, but concerns remain that the project intervention does not leave women worse off than before) and positive level (improving the position of women relative to men).

In the Direction to Massawa in Pre-Egyptian Time

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The paper deals with an important chapter of intellectual history, the international knowledge about the travel-conditions in Massawa for Western travellers in the 18th century.

In the 18th century, the mission of the Moravians settled down in Egypt and was looking for a way to the south. It was an important step for the knowledge about the travel to the Horn of Africa among German travellers about the geographical map for travel-routes and the conditions they might have to face. What kind of information they got in Cairo? And how much the later German

reports regarding Massawa confirmed the earlier information? The paper examines the reports of the Moravians, just edited by the Institute of Ecumenical Theology and Oriental Church History at the Georg-August-University in Göttingen. Up to now, this information was scientifically not yet evaluated (what should be done here in comparison with the later German travellers).

The Genetic Inheritance of European Languages: the Unexpected Role of Tigrinya

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It is usually believed that there are no genetic relationship among Semitic and European languages. This view has been challenged by the so-called “Indo-Semitic” works in the field of historical linguistics – which dated back to Ascoli (1864-1867) and von Raumer (1863-1876). Following the recent works of Bomhard (1984; 2008), Semerano (1984-2003) and Levin (1995; 2002), the present investigation aims at demonstrating that Semitic languages and European languages share a common Afro-Asiatic descent language, progenitive to them both.

The case of Tigrinya is revealing of the promising benefits of this approach. In Tigrinya we observe words semantically and formally similar to their counterparts in Italian, English, Spanish and French and their dialect variations, notably Catalan, Galician, etc.

Clearly enough, we do not deny that in Tigrinya some words are borrowed from European languages, namely Italian and English – given their historical influence. None the less, we assume that for a consistent number of words a convincing explanation can be provided within the framework of the Afro-Asiatic common ancestor. We are referring to words such as “have”, “horse”, “cup”, “mother”, “fruit”, “girl”, “chief”, “scent”, “mort”, “secure”, in English (and other languages) or “cabesa”, “casa”, “seguro” in Spanish and Portuguese, or “come”, “curva”, “vitello”, “manica”,

“babbo”, in Italian and other languages, which are discussed in this paper along with Tigrinya counterparts.

The present investigation does not want to give a definitive answer to this compelling debate, which is very intriguing, however. The purpose of this paper aims at establishing a new revival of interest for the genetic inheritance of an Afro-Asiatic ancestor among European and Semitic languages.

Internet Access in Eritrea – Changing a Challenge into an Opportunity: A Model for Moving Forward

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For various reasons, internet access in Eritrea can, at best, be described as very patchy and slow. In fact, officially – according to the International Telecommunications Union (ITU)- Internet speeds in Eritrea are among, if not, the slowest in the world.

While these statistics can sound alarming or depressing, a deeper study of why the state of Internet access is what it is in Eritrea can reveal that it has nothing to do with lack of effort or for – as some have tried to insinuate – an unwillingness on the government’s part to develop the Internet infrastructure.

Moreover, the challenges that we are facing in this sector of development should not discourage us but, as this brief paper will try to discuss, rather open up opportunities to develop a robust, ultra-modern IT infrastructure system that would be comparable to some of the most advanced in the world.

This paper will try to look at the various options of improving the IT infrastructure – specifically the Internet access- and will try to provide a road map designed and geared for Eritrea in its present situation using Eritrean “solutions” in areas of design, implementation and maintenance.

In this quest, this paper tries to look at such fundamental issues such as why we need to improve IT infrastructures; the potential

economic advantages of an improved IT infrastructure and culture for the development goals of the country; dangers and pitfalls to avoid, and also other relevant issues.

The paper also tries to argue that improvement of the IT infrastructure can be achieved within the economic restraints of the country by utilizing Eritrean expertise and participation of Eritreans both in the country and residing overseas.

The COP21 Paris Agreement: Climate Change, Gender and Sustainable Development

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On the 12th of December 2015, *The Paris Agreement* was finally adopted, at the 21st Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) - with 28,000 delegates (who actually entered the premises) from more than 190 nations, the largest number of participants ever; the largest number of Heads of State and government together under one roof on one day – ever; a remarkable spirit of co-operation and a determination among governments to reach agreement, enabled by outstanding diplomacy by the Presidency, Mr Fabius Laurent, (Former Minister of Foreign Affairs of France); and a huge array of events and side announcements constituting ample demonstration of the momentum and engagement towards climate solutions.

The COP 21 Paris Agreement and its related decisions is an ambitious global plan to tackle and combat climate change and its impacts. It constituted a turning point in the global efforts to deal with climate change problems and chart a *new course* to a low carbon future. As a next step in implementation, Ban Ki-Moon, the UN Secretary-General will convene a high level signing ceremony on the 22nd April 2016 in New York, USA, and the Agreement can only enter into force once it has been ratified by

55 countries, from 22 April 2016 to 21 April 2017, representing at least 55 percent of emissions.

Was Paris the most successful climate change conference? What is the significance of such an Agreement? The following and many more questions about the COP21 Paris Agreement need serious answers:

- What does COP21 Paris Agreement mean for Africa and specifically for Eritrea?
- How genuine and binding is the commitment of developed countries to provide funding/finance for adaptation and mitigation?
- To what extent did the Agreement successfully highlight in mainstreaming Agriculture in the negotiation text?
- Are there some remaining burning issues that still need to be addressed?
- What has been the role of Eritrea in the overall negotiations of Climate Change under the UNFCCC?

The Role of Frontline Surgical Unit in the Eritrean War of Liberation

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The Eritrean People's Liberation Front (EPLF) introduced a number of highly innovative medical systems in order to overcome the challenges of limited resources, both human and material, and the pressures of war. Some of these systems, as well as the results they produced in terms of reduced fatalities (mortality and morbidity), are considered.

Among the most prominent systems is the establishment of the Frontline Surgical Unit (FSU) that the Front ran for the most part of its existence. The FSUs were located close to the combat zone (about 5 km). This enabled the wounded to receive major medical treatments (including delicate surgeries) few hours (typically between 45 minutes up to 3 hours) after the injury. The first FSU

was established during the long battle fought for the liberation of the town of Nakfa in August 1976.

From the experience gained and outcome of the first FSU, the EPLF established several FSUs in various frontlines which consequently reduced the mortality and morbidity rates of war casualties. Thus, depending on the military engagements and nature of the battles, the number of FSUs was varying considerably. For instance, the number in 1978 increased to four, in 1982 (the Sixth Offensive) to six, in 1988 during Nadew Ezi annihilation to 10, and towards the end of the War to 16.

The impact of the FSUs in the mortality rate of the Eritrean War of Liberation was dramatic. The overall mortality rate of abdominal injuries, which is one of the most sensitive indexes for measuring outcome, was 16.8%. This is in contrast to that of WW1 66%, WW2 (British) 45%, WW2 (USA) 24%, Korean War (USA) 12.6, and Vietnam (USA) 10.0%.

Optimization of Tillage and Supplementary Irrigation for Intercropping of Sorghum with Pigeon pea

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Economic benefits of an agro forestry system of intercropped pigeon pea [*Cajanus cajan* (L.) Millsp] with sorghum [*Sorghum bicolor* (L.) Moench] under three tillage levels and supplementary irrigations were studied in Hamelmalo during 2013 and 2014 crop seasons. The experiment was set-up in split plot design with conventional tillage (CT), reduced tillage (RT) and zero tillage (NT) in main plots and rainfed (I_0), 50% of full irrigation (I_1), 75% of full irrigation (I_2) and 100% of full irrigation (I_3) in subplots in three replications. The objective of the research was to weigh-up the economic potentials of optimum tillage and supplementary irrigations in an intercropping system in view of increasing and

diversifying household income. In this study, it was found out that the highest net benefits was obtained from RT+I₃ (ENF 131,159.00/ha). It also produced the highest marginal rate of returns and returns per Nakfa investment in the sorghum /pigeon pea intercropping systems. However, there was no significant difference between RT+I₃ and the second profitable treatment (RT+I₂) in SEY and sorghum Stover yield as well as in economic parameters.

Culture and National Identity: An Analysis of the Psychosocial Challenges for Eritrean Youth in the Diaspora

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The presentation will discuss the impact of culture on our socio-emotional and intellectual functioning.⁵ This is followed by a discussion of the changes of our conceptualization of the Self as a result of socio-economic transformations in the pre and post industrial revolution.⁶ The social constructs of individualism and collectivism will be employed to further understand the role of culture in human development and identity.⁷ The history and culture of Eritrea will be considered to demonstrate that Eritrea, as a collectivist society, will provide the psychosocial context necessary for the development of a person primarily concerned with the welfare of the family, community and nation. Taking into account the above mentioned explanations, the stages of

⁵ Nisbett, R, (2003). *The Geography of Thought*. Free Press.

⁶ Sampson, E. E. (1989). "The Challenges of Social Change for Psychology: Globalization and Psychology's Theory of the Person". *American Psychologist*, 914-921.

⁷ Matsumoto, D. (1994). *Psychology from a Cultural Perspective*. Brooks and Cole Publishers.

identity development in the Diaspora will be analysed.⁸ Finally, there will be a discussion of the role of socialization agents on the process of identity formation.

Holistic Approach Intervention Strategy in Changing the Attitude and Practice of Eritrean Communities against FGM/C

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Female Genital Mutilation (FGM) or otherwise called Female Genital Cutting (FGC) refers to all procedures involving partial or total removal of the external female genitalia or other injury to the external female genital parts for cultural or any other reasons (WHO, 1995). FGM/C is deeply rooted traditional act predominantly practiced in most of Eritrean cultural groupings and Eritrea is among the countries which have the highest FGM/C prevalence in the Horn of Africa. Djibouti and Somalia have the highest prevalence (98%), followed by Eritrea (95% in the 1995 Eritrean Demographic and Health Survey (EDHS), 89% in the 2002 EDHS and 83% in the 2010 EPHS), Egypt (85–95%), Sudan (90%), Ethiopia (70 – 90%) and Kenya (50%).

Understanding its consequences on women and girls Eritrean is applying a holistic/systemic approach in the intervention of this harmful practice. Thus, the overall objective of the study is to analyze the holistic approach Eritrea is applying compared to other approaches from other countries both in terms of its strengths and drawbacks in its implementation process and outcomes.

The study will apply both qualitative and quantitative approaches. Desk review will be incorporated; structured questionnaire will be

⁸ Cross, W. E. (1971). *The Negro to Black Conversion Experience*. Black World.

developed and administered to households and interviews will be conducted with key informants from representative regions. The findings is expected to come how holistic approach is useful in intervening Female Genital Mutilation and how it could be changed the knowledge and practice of Eritrean communities.

Verbal Forms and Abyssinian Semitic Subgrouping

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The Semitic languages have enjoyed a long tradition of linguistic studies. Unfortunately, a consensus has not been reached among scholars regarding the proper classification of this family (cf. Christian 1919/20, Hetzron 1974, Goldenberg 1977, Voigt 1987, Rodgers 1991, Huehnergard 1992, Faber 1997, Rubin 2008 among others for different Semitic subgroupings).

Regarding the subgrouping of Abyssinian Semitic languages too, a consensus has not been reached among linguists. Some scholars used to assume that they are derived from Gǝʿǝz (cf. Ullendorff), while many others assume that they may be derived from one ancestor language which is not Gǝʿǝz (cf. Hetzron 1972, Lusini 2006 among others). However, there are also other linguists who argue that they cannot be derived from one ancestor language. Cohen (1938: 38-52), in his work on Semitic classification, argues for the arrival of several separate streams of immigrants to areas which correspond to present day Eritrea/Ethiopia from South Arabia which implies that there is no common Proto-Abyssinian stage. Fleming (1968: 356, 365) suggested that North and South Abyssinian Semitic languages are descendants of two separate independent groups of South Arabian immigrants to the North and to the South of the Horn of Africa. Faber (1997: 12) strongly argues there is virtually no linguistic evidence for a common Abyssinian Semitic stage. Furthermore, there is dissent regarding the origin of Abyssinian Semitic languages: for some linguists it

may be Ethiopia or areas around it, while for others it is Ancient South Arabia.

Abyssinian Semitic languages can be divided as North Abyssinian (Tigre, Gǝʿiz and Tigrinya) and South Abyssinian (Amharic, Gafat, Argoba, Harari and Gurage languages) Semitic languages. But these classification appears geographical (cf. Hetzron 1972, M. Bulakh, L. Kogan 2010 among others). Tigre is spoken in Eritrea and in the Sudan, Tigrinya is spoken in Eritrea and in Ethiopia, Gǝʿiz is a classical language used in both Ethiopia and Eritrea, while the rest of Abyssinian languages are spoken in Ethiopia. In the literature, Abyssinian Semitic languages are also known as Ethiopian Semitic, Ethio-Semitic, Ethiopic or Afro-Semitic. Some linguists call this group Afro-Semitic to avoid the exclusive focus on Ethiopia. In this article, I call this group Abyssinian Semitic because (i) I think Arabic can also be regarded as African (ii) Habashat is nothing but a place name for Eritrea and Northern Ethiopia (cf. Irvine 1965, Lusini 2006 among others).

In this paper, ancient and current Semitic and Abyssinian Semitic verb stems are discussed in order to see if they can really be of use in the subgrouping of Abyssinian Semitic languages. As far as this work is concerned, there is no evidence to show that the languages in question are derived from one ancient language and this in line with Faber 1997.

The Eritreo-Ethiopian Languages in their Semitic Context

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In this paper, a description of the present available data to broadly reconstruct the oldest phases of Semitic Languages will be given, focusing mainly on the fundamental contribution of the 3rd Millennium BC Ebla Archives. On this base, the different hypotheses describing the proto-historical process leading to the actual geographical distribution of the Semitic languages will be

discussed, with a particular highlight on the interesting case of the isolated African location of the Eritreo-Ethiopian group, together with the still controversial subgrouping of the so-called South Semitic languages.

Early Pleistocene Ecological Relations among Omnivorous Species: suids, ursids, cercopithecids and hominins⁹

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During the Early Pleistocene (~ 2.0 – 1.0 Ma), large omnivores species (suids, ursids, cercopithecids and hominins) have been inhabiting in a wide geographical range in Africa, Middle East and Eurasia. Their evolution and dispersals have been related to global climatic changes and their successful strategies of food resources exploitation. Their dietary diversity reflected the specialization of their craniodental morphology, developing specialized anatomical traits amplifying their ecological niche. Their successful co-evolution within the large mammalian evolving communities during the Plio-Pleistocene chronology can be related to the evolution of their analogous dental morphology and successful dietary trophic (Hatley and Kappelman, 1980).

The combined methods of dental anatomy, tooth microwear and statistical analyses applications together with data from stable isotope data, help to understand the dietary trophic and paleoecological habitat of the omnivorous species that inhabited different geographical areas (Medin et al., 2015). The record of stable isotope signatures retrieved from each site (Palmqvist et al.,

⁹ This study is the result of a four years PhD research work.

2003, 2008; Abbate et al., 2004; among others) is in agreement with the microwear data and paleoecological results.

The Effect of Owner-Managers and Firm Characteristics on the Performance of Eritrean Firms: The Case of Wood and Metal Manufacturing

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The performance of the Small and Medium Enterprises (SMEs) is influenced by many factors including personal characteristics of the entrepreneur as well as the organizational characteristics of the enterprise. Owner-manager characteristics include age, gender and education of the entrepreneur. Firm characteristics include age of the establishment, type and location. The main objective of the study is to determine the effect of the characteristics of the entrepreneur and that of the firm on the revenue performance of wood and metal manufacturing SMEs in Eritrea. A cross-sectional survey design was used with a semi structured questionnaire being the main data collection instrument. A sample of 300 SMEs in three regions was taken of which 287 observations were analyzed. The study used descriptive analysis, χ^2 test, multiple linear regression and ordered logit regression to analyze the data. The results reveal that personal characteristics such as age were found to have positive influence on revenue performance, while educational level of the entrepreneur had a negative influence. Entrepreneur experience and gender, however, were not found to have a significant influence on revenue performance. Firm characteristics such as business type and location of business were found to have significant influence on revenue performance of the firms.

The Dream of the Greater Horn: Eritrea's Involvement in the Pan-Africanist Project of the 1990s

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Following the collapse of the Derg regime in Ethiopia and the implosion of Apartheid in South Africa, the balance of power on the continent shifted away from a number of conservative, status-quo oriented regimes to a group of like-minded rebel organisations turned ruling parties from the Red Sea to the Atlantic. Liberation movements such as the NRA/M from Uganda, the ANC in South Africa, the EPRDF in Ethiopia, the RPF from Rwanda and the EPLF/PFDJ in Eritrea did not just work towards a radical overhaul of their domestic political economies and to transform old identity cleavages that had torn their countries apart; they also found partners in each other in their desire to transform the international relations of Africa. For Asmara, Addis and Kigali in particular this objective of a Pan-Africanist restructuring of African politics was pursued under the project umbrella of the "Greater Horn", a vision of regional integration that sought close economic and political ties between brother countries and an agenda of regime change in those states inimically hostile to these transformation efforts. In this paper, I document the critical ideological and political factors that led to the emergence of the dream of a Greater Horn, with special reference to Eritrean foreign policy. The latter parts of the article subsequently analyse why this vision ultimately collapsed amidst three "wars of brothers" that all occurred within 15 months of one other- on the Ethio-Eritrean border (May 1998), during street battles outside Kinshasa (August 1998) and in the killing fields of Eastern Congo (August 1999).

**A Study of the Eritrean Hagiographical Traditions: the
Bibliotheca Hagiographica Erytraeica Project (BHE)**

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Eritrean hagiography consists of Vitae in honour of a saint (generally the founder of a monastery or one of the first abbots), to which a collection of miracles and hymns are appended, as well as minor texts such as monastic genealogies and commemorative readings. It is commonly accepted that such literature, written in Gəʕəz at least from the 14th century, is crucial in the understanding of the political and social history of medieval Eritrea. Unfortunately, scholarly knowledge of the Eritrean ecclesiastical and monastic collections suffers a dramatic gap: we know, for instance, that Däbrä Bizän and Däbrä Maryam Qwähayn preserve a considerable number of manuscripts, but their libraries are still virtually unexplored. This represents a serious limit to a thorough investigation into the hagiographical dossiers and, as a consequence, of the Eritrean history. The task of the BHE (*Bibliotheca Hagiographica Erytraeica*) project is a systematic mapping of the hagiographical documents devoted to Eritrean saints and of the manuscripts (preserved both in Europe and in Eritrea) hosting such literary material. Aiming at a comprehensive study of the hagiographical traditions, the project is placed at the intersection of several approaches: text-criticism, codicology, history, and literary studies. The purposes of the project are manifold: providing critical editions of the unpublished gädlat according to the Neo-Lachmannian criteria; cataloguing manuscripts unknown so far; recording ethnonyms, place names and personal names occurring in the textual sources; establishing tentatively networks between ecclesiastic or monastic institutions that share a veneration for the same saint; finally, carrying on an in-depth typological study of this remarkable written expression of the Eritrean culture.

The Laryngeal Rules in Tigrinya

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The laryngeal rules of Ge'ez are based on the weakening of the articulatory basis of the so-called laryngeals or gutturals. In Ethiopic studies this somewhat infelicitous notion is used to subsume the pharyngeals *ħ* and *ʕ* as well as the glottal sounds *ʔ* and *h*.

The first laryngeal rule concerns the pronunciation of the vowel of the first order after laryngeal according to the traditional pronunciation of Ge'ez:

L₁: *ä/L* > *a*, e.g. መጽሐፍ: *mäṣḥäf* > [*mäṣḥaf*] 'book', ዐይን: **äyn* > [*äyn*] (cf. ፈውስ: *fäws* 'healing').

The spelling of today corresponds to the late spelling habits in Ge'ez: መጽሐፍ and ዐይን. But there are numerous exceptions in Tigrinya where the *ä*-vowel stands after the laryngeal.

The second rule concerns the first order vowel preceding a syllable-closing laryngeal:

L₂: *ä/___L* > *a*, e.g. **yəmṣä*' > ይምጸእ: *yəmṣä*' 'may he come' (cf. ይቅረብ: 'may he come near'), **mä'käl* > ማእከል: *mä'käl* 'center' (cf. መንፈስ: *mänfäs* 'spirit').

The form ይምጸእ *yəmṣä*' remains preserved. The quoted form ማእከል *ma'käl* (ማእኸል *ma'kä*) is probably a loan from Ge'ez.

According to the third rule a pre-laryngeal closed central vowel (Shwä') is shifted further back in the mouth and becomes an open central vowel:

L₃: *ä/___Lä* > *ä*, e.g. (**məḥär* >) **məḥar* > መሐር: *mäḥar* 'have (m.) mercy!' (cf. ቅረብ: 'draw near!'), (**yə'äṣṣəb* >) **yə'äṣṣəb* > የዐጽብ: *yä'äṣṣəb* 'it is difficult' (cf. ይሰብር: *yəsäbbər* 'he breaks').

This rule remains preserved: መሐር *mäḥar*, but different vocalisations are possible. With ይዐጽብ *yə'äṣṣəb* the rule does not seem to have applied; however dialectal collateral forms like የዐጽብ *yä'äṣṣəb* / ያዐጽብ *ya'äṣṣəb* have to be considered.

A vowel assimilation across a laryngeal is described in the fourth

rule:

L₄: *ä/___LV[≠ä]* > ə, e.g. **rä'əyä* > ርእየ: *rə'(ə)yä* 'to see' (cf. ቀርቦ: 'he approached'), **ṣāḥifā=hu* > ጽሑፍ: *ṣəḥifo* 'he having written' (cf. ሰቢሮ: *sābiro* 'he having broken').

The rule remains preserved, as in ጽሑፉ *ṣəḥifu*. Here too different dialectal vocalisations are possible.

The two rules L₃₋₄ conflate into one according to which the vowel before syllable-opening laryngeal is unstable and can be realised as ə, ä or a. This is already foreshadowed in Ge'ez, where e.g. the causative stem of ቦአ: *bo'a* 'to enter' surfaces as ኣቦአ: *'abə'a* 'to cause to enter, bring' instead of ኣቦአ: *'abo'a* or **'abwə'a* (cf. ኣብጽሐ: *'abṣəḥa* 'to bring', caus. of ቦጽሐ: *bäṣḥa* 'to arrive'), as in Tigrinya ኣቦአ *'ab'ä* and ኣብጽሐ *'abṣəḥä*.

English as a Medium of Education in Eritrea's Middle Schools: Challenges and Recommendations

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English is one of the languages most commonly spoken in the world. The medium of education used in the classroom has a vital role in the learning of the students. It is a big factor in accomplishing quality education upheld by any academic institution. The policy of the Eritrean Government states that English is the medium of education from the middle school and beyond. In the Eritrean education system, English is taught in elementary schools as a subject and used as a medium of education in all upper educational schools and institutions.

This research aims to identify the challenges students encounter in grade six and to suggest possible solutions for teaching and learning English in the middle schools and higher grades. The study focuses on the importance of the integration of content and language learning, communicative language teaching and learner-

centred and interactive pedagogy in developing the use of English as the medium of education.

The main challenge is that students have a basic difficulty in understanding the English language. The words and concepts that they gain in their elementary school are not adequate enough to enable them study all other subjects in English.

The descriptive research design is used in the study and it is conducted in an elementary middle school, with representative teachers and students of grade six, as well as with curriculum developers. The data is triangulated to verify the findings collected from the questionnaires, interviews, document analyses and classroom observations.

The study concludes that students are unable to cope with the English language in the content subjects. The command of the English language is worthwhile in education and to acquire the language there is a need to improve English teaching and learning methodologies.

**Resistance Beyond Borders: the Relationships between the
Sudanese State and Sudanese Opposition Movements within the
UK-based Diaspora**

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The paper discusses in depth how one aspect of Sudan's political destabilisation has been the outward migration of many of its opposition activists. Rather than allowing migration and resettlement to halt their activism against the Sudanese state, many activists have found ways of remaining engaged in their opposition movements from outside the border. In turn, the Sudanese state is aware that the resistance it faces is not only propelled from within Sudan, but is also fortified by flows of financial, political and social resources coming from outside of its area of jurisdiction. This paper will analyse the engagements between the Sudanese state and the various opposition movements

that exist in Diaspora in the UK. It attempts to analyse the strategies of engagement employed by each party and discusses, in particular, how the externality of the Diaspora is both expedient and problematic for both the Sudanese state and the opposition activists themselves.

Perceptions of Heroism: A Comparison of Women's Roles within the National Liberation Struggles of Eritrea and Zimbabwe

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Both the Eritrean War of Independence (1961-1991) and the Zimbabwe War of Liberation (also known as the Second Chimurenga) (1966-1979) are two particular struggles, in which women were actively recruited into the fighting forces and participated in armed combat. In both wars, the high percentage of women's involvement signified their admittance into new spaces that challenged and expanded their traditionally determined gender roles. For many women, this access to agency and power within the patriarchal context of a military hierarchy represented an opportunity to claim power within the new nation. This apparent marriage of nationalism to women's liberation created a strong rupture from their highly gender-divided traditional societies and promised extremely progressive post-war reform. The realization of gender equality for female combatants in both countries, however, proved to be a more complex and nuanced process than the sudden, radical reform first presented by the militarization of women. This paper examines the complicated manner in which women's identities and gender roles were constructed and perceived within two revolutionary groups—Eritrean People's Liberation Front (EPLF) and Zimbabwe National African Union (ZANU) and its associated guerrilla force, Zimbabwe National African Liberation Army (ZANLA).

This paper explores the various levels of perception of women's participation within EPLF and ZANLA by statements made in official discourse, through media, fiction, as well as by the women themselves. In doing so, this paper seeks to capture the various constructions and reconstructions of gender at the guerrilla camps and in post-war society. I argue that the greatest distinction between the widespread gender equality within the EPLF and the strict gender divisions within ZANLA arose primarily from Eritrean women's incorporation into the fighter identity, which enabled them to claim political power in the newly liberated nation.

**The Mesquite Tree (*Temr Musa*) an Alien Invasive Plant Species –
'*Prosopis chilensis*': A Blessing in Disguise or a Nuisance to the
Eritrean Ecosystem**

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The mesquite tree locally known as *Temr Musa* is an alien invasive plant species which entered Eritrea in the early 1980's from neighbouring countries. This species grows in dry lands, fixes nitrogen and is suitable for the rehabilitation of degraded lands in the lowlands and mid altitudes of the country. It is a multipurpose perennial tree. Its wood is used for charcoal, house construction, and other household amenities. With proper formulation, its pods and leaves are used as animal feed. Despite its advantages, however, the species is aggressive and poses threats to the local biodiversity. As it grows on riverbanks, many people think that it dries-up wells and water points. These observations led to heated debates among professionals regarding the future of the species as to remove it altogether from the country or introduce a management system that would contain it in confined areas. As there is no simple answer to the issue at hand, there is dire need for detailed analysis of the problem.

The aim of this paper is to shed light on some of the controversies surrounding the Mesquite tree in Eritrea. It investigates its geographical coverage, the extent of damages posed to the ecosystems, and the perceptions of the local communities. Finally, it tries to strike a balance between its advantages and disadvantages to the livelihoods of communities and the ecosystem. This paper is based on an extensive literature review, field observations and discussions with key informants in the target areas. It analyses the distribution trends during the most recent years particularly in the eastern semi-deserts and western lowlands of Eritrea where it has its greatest thrust.

The study reveals that *Prosopis chilensis* is expanding its geographical converge at an alarming rate. It is invading all along the coastal plains: saline soils and other suitable habitats. It is expanding along the rivers of Barka, Anseba, and Gash threatening the biodiversity including the Doum palm (arkobkobay) - a species which has significant contribution to the livelihoods of the rural communities. The perceptions of the local communities are. While, communities in Southern Red Sea indicated that it is useful as shade to humans and livestock, and sand dune fixation, in the Northern Red Sea and Gash Barka, it is thought to have negative impacts as it threatens the livelihoods and the ecosystem. Because of its adaptability to wide ecological ranges, it emerges to be helpful in combating desertification and mitigating adverse effects of climate change. In view of these contrasting views, a win-win community-based management system needs to be developed and introduced to control its spread to sensitive habitats of indigenous biodiversity. In deserts and semi-desert areas, where other species fail to grow, the species could be a potential both as a source of livelihoods and a means of combating desertification in Eritrea.

How sub-Saharan Africa can Achieve Food Security and Ascend its Economy to Initial Stages of Light Industrialization

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Sub-Saharan Africa (SSA) is the portion of Africa located south of the Sahara Desert. It comprises most of the African continent and is home to the majority of Africa's population. Unfortunately, despite SSA's bountiful natural and human resources, the region is facing an ever-worsening food insecurity and environmental crisis. The combined effect of rapid population growth, inadequate domestic food production, and a general lack of sound resource-management practices has resulted in widespread and endemic malnutrition, hunger and extreme poverty. Even though SSA's economy is growing, the number of people living in abject poverty is on the rise.

Crop yield increases have been stagnant in SSA for the past several decades while substantially increasing in all other major regions of the world. The fastest and most efficient way to eliminate poverty and improve economic growth is by implementing holistic reengineered rainfed crop production (HRRCP) or modified crop production technology (MCPT) that results in surplus crop production. In the area of Zoba Maekel, located in the Central Highlands of Eritrea, hundreds of small rural farmers have joined crop yield enhancement programs by introducing farm practices that closely resemble HRRCP and their production of wheat yields grew from 1 ton per hectare to 2-5 tons per hectare.

However, unless the rapid population growth of SSA countries is favourably addressed and the fast paced degradation of the environment and natural resources are restored and maintained, there cannot be sustainable surplus agricultural production. Furthermore, although the realization of surplus agricultural production by SSA countries is a major milestone in the region's economic development, long-term sustainable agricultural production can only be realized if SSA countries develop

diversified sustainable economic development (DSED). DSED is the level at which agricultural and non-agricultural sectors of the economy such as service, manufacturing, trade, mining, hospitality, tourism, and construction sectors, among others, develop and become increasingly interdependent as resources are made available through efficiency gains in the agricultural sector resulting in the ascendancy of the overall economy to the initial stages of industrialization.

The U.S.-Eritrean Relations: Whose Interest Counts Anyway?

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The US-Eritrean political relation over the last three-fourth of Century has been an acrimonious one to say the least. Unfortunately, the junctures of such unharmonious relations have tended to fall at a time when Eritrea's entity as a state or sovereignty was severely tested. As a result, the impact of such a relation between the two has been a source of untold suffering, sorrow, and misery to the people of Eritrea. For many people the fault for such a situation in international affairs lies with the people of Eritrea themselves. Many beg to differ strenuously. This paper attempts to shed some light on such a charge with the hope that a clearer understanding of the issues that lead to such state of affairs might help the two countries to patch up their shortcomings and move forward in a spirit of cooperation and respect of each other's rights and views.

The paper is not meant to fan the charges and countercharges one usually hears commonly. Indeed, there are hopeful signs that the wind of change for better accommodations of one another's views and interests is blowing in the right direction and an understanding of the past might help them, not only to avoid repeating mistakes, but to move forward in earnest to the extent of making up for squandered past opportunities.

Eritrea, Taking Care of its Wounded War Veterans, Challenges and Achievements: Lessons to be Learned

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Eritrea is one of the youngest and smallest nations in Africa, located along the Red Sea coast in the Horn of Africa, which declared its independence in 1991 after waging armed liberation struggle for 30 years against Ethiopia. This 30-year war, however, came at a heavy cost; during the war, more than 150,000 Eritreans died, and about 65,000 freedom fighters were martyred and tens of thousands sustained disabilities; most of them were freedom fighters. After independence, despite the many problems that it was facing, a completely devastated economy and infrastructure, the young nation never forgot its veterans. Eritrean War Disabled Fighters Association was set up to assist the disabled fighters to become independent and productive members of their communities. EWDFFA took care of the essential needs of its members by providing medical assistances, education and employment opportunities. The study examines Eritrea's successes and the challenges it faced in rehabilitating its war veterans. There is a valuable lesson and experiences to be shared with other countries facing similar situations in rehabilitating and supporting disabled war veterans.

Retrospective Analysis of Ethiopian Archives in Eritrea

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This paper provides a retrospective analysis of the recordkeeping system of Ethiopian collections, especially of those records created and maintained by the Second Revolutionary Army, which are currently under the custody of the Department of Documentation

of Eritrea. Records of Intelligence and Security as well as Provincial Administrative Records are also described in brief.

Administrative histories and contextual information of the collections are included to help researchers understand the significance of the archives. The primary file series in the arrangement of the records are prepared in tabular forms to help researchers get acquainted with the general contents of the vital records. This work discusses the life-cycle of the records by examining how they were created, used, maintained and disposed of while they were in their current and semi-current phases during the colonial period. Further, it enlightens the importance of the archival materials to Ethiopia while they were having continuing utility and their evidential and enduring values to Eritrea as a state and to interested researchers.

Besides creating awareness of the presence and importance of the records, it compares the unrealistic content of some publications against the evidence that actual records say in order to illustrate the importance of referring archival materials to writers and or authors.

Finally, recommendatory statements are provided to ensure the preservation of and ease access to the archival materials.

Economic Integration in the Horn of Africa: The Challenges to the Integration Process in the IGAD Region

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Nearly for the past three decades, Countries on the IGAD region were struggling to attain sustainable economic development and self-reliance through economic cooperation and regional integration. After revitalization in 1996 IGAD was seen as a practical approach in tackling the economic and political dilemma of the region. Member states had squarely hoped that the success of IGAD will significantly improve their intractable socio-

economic and even political problems of underdevelopment, poverty and external dependency.

Since its revitalization, IGAD's aim has been to push for the regional peace and prosperity. But its drive to create a unified middle-income region free of poverty and conflict is still a distant dream. Yet, more than nineteen years after its revitalization, IGAD has essentially done very little, with hardly any meaningful performance in relation to its stated objectives of achieving regional integration to ensure regional stability, sustainable economic growth and development. Conflicts still continue to constitute one of the greatest challenges facing the region. Indeed the region is one of the poorest and most fragile crisis regions in Africa.

Therefore, the main aim of the paper is to critically analyze the challenges IGAD is facing on the integration process and be able to answer the main research question i.e. why has regional integration process been very difficult in the IGAD region? What went wrong and why?

ብድሆታት ምፍራይ ፊልም ኣብ ኡርትራ

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እዚ መጽናዕቲ'ዚ ኣብ ሃገርና ዘጋጥሙ ዘለዉ ብድሆታት ምፍራይ ፊልም ንምልላይን መፍትሒ ንምርካብን ዝዓለመ ኮይኑ መደምደምታን ለበዋን ዝሓቐፈ ትሕዝቶ ኣለዎ። እቲ ኣርእስቲ ኣዝዩ ሰፊሕ ኣብ ርእሲ ምዃኑ እዚ መጽናዕቲ ብግዜን ዝርገሐን ድፍትን ውሱንን ክትብሎ ትኽእል። እዚ ኣርእስቲ'ዚ ብሕጂ ብሰፊሕ ተጽኒዑ፣ ኣዝዮም ሓያለ ኣርእስታት ኣካቲቱ ክጽናዕ ስለዝግብኦ ኣፈናቂን መበገስን ድኣ እምበር ናይ መወዳእታ መጽናዕቲ ክበሃል ኣይከኣልን።

ኣብዚ መጽናዕቲ'ዚ ሓሙሽተ ደቂ ኣንስትዮ ኣፍረይትን ተዋሳእትን ፊልምታት ዝርከቡሎም ሰላሳ ሰባት፣ መብዝሕትኦም ካብ ዓሰርተ ዓመታት ንላዕሊ ኣብ ሓየለ ፊልምታት ዝተዋሰኡን ዝኣለዩን ዝተሳተፉዎ መጽናዕቲ እዩ። ብመገዲ ቻለ መሕትት (questionnaire) ዕላል፣ ቃለ ምልልስ (interview)፣ ድማ ሓበሬታ ክእከብ ተፈቲኑ። ብተወሳኺ ኣብዚ ዓውዲ ትያትሪካል ኣርት ዝምህሩ ዘለዉ ሓሙሽተ

መምህራን ከም መወከስ ክውሱዱ እንከለዉ፤ ተመክሮ ኣቕራቢ መጽናዕቲ፤ ምስኪ ብዝተኣሳሰር ዝተጻሕፉ መጻሕፍትን ጋዜጣታትን፤ ካብ መርቡሰ ሓበሬታ ዝተረኸቡ ጽሑፋት፤ ከም መወከሲ ተዳህሲሶም እዮም። ብተውሳኺ፤ ኣብ ኤለክትሮኒካዊ ጽሑፋትን መጻሕፍትን ዝተሰነዱ ጽሑፋት ብምውካስ (review of related literature) ሓበሬታ ክእከብ ተፈቲኑ ኣሎ።

The Sites of Mai-Temenai and Adi-Bari
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This paper is devoted to the results of the archaeological research on two analogous highland sites-Mai-Temenai found at the Northern outskirts of Asmara, and the tomb of Adi-Bari in Medefera, Zoba Debub region. Both sites were excavated during an emergency intervention that led to the discovery of a wide range of antiquities. At Mai-Temenai, the richness of the finds-bracelets, tweezers, rings, beads, daggers of bronze and copper as well as beautifully executed pottery vases with multiple necks suggest a culture concerned with ancient production of elegance. A systematic excavation was also carried out at the site of Adi-Bari, by researchers from the National Museum of Eritrea, the Department of Archaeology, University of Asmara and the University of Rome “La Sapienza”. The radio carbon analysis of the site of Mai-Temenai has confirmed a date of 2370 BP. At Adi-Bari, Skeletal remains have been obtained in association with material cultures, including ceramics, metal objects, beads and paeobotanic remains. Subsequent bone analysis indicated that the site is dated 2125 BP. These scientific dates are some of the first radio carbon dates run on samples from the excavations conducted by the National Museum of Eritrea. These results will contribute to establishing the base framework upon which an intriguing glimpse of the wealth of history that archaeology will be able to add to the Eritrean national heritage.

Temporal Variation of Coral and Reef Fishes around Massawa

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This study collected baseline data for a long-term monitoring of coral reefs by establishing permanent monitoring sites in four reefs around Massawa. Benthic communities were surveyed using line intercept transect method and visual census was used to examine the fish community. This study had been carried out from June 2013 to July 2015 by collecting data once per year for corals and twice per year for reef fishes. Additional data for corals was collected for Twalot and Riesi-mdri in 2011. The result showed there was a remarkable decrease in live coral cover from the year 2011 to 2013 in Twalot and Riesi-mdri reef but the live coral cover shows rapid recovery in the subsequent sampling years. Gurgusum reef, where highest live coral cover was recorded, showed little variation in coral cover over the year. The fish community showed close relation with the benthic community. As live coral cover decrease abundance of coralivorous fishes (chatodontides) decreased. The abundance of angelfishes (Pomacanthids) showed positive correlation with those of sponge cover. Results from this study indicate that the reefs around Massawa show fast decline in live coral cover but the corals recover very fast. The corals seem to be sensitive to changes in the environment but fast in recovery. Thus, any coastal development projects in the area should be carefully executed considering the health of the reefs could be affect by sedimentation and other factors. Thus, there is a need for closely monitoring the health of the reef around Massawa.
