

REVOLVE

N°3 WINTER 2011/12

ENERGY ART POLITICS



Kashmir Calling

The Key to Stability
in Central Asia

Libya

Bye-Bye Brother Leader

Nicola Lo Calzo

The Other Family

Happy Hollows

Experience Exuberance

Barcelona

Urban Habitat





feel our energy



REDEFINING WEST ASIA

The positive changes in the Arab world herald a new era for millions of people. At the start of this new era, we need to discard the terms “Middle East” and “Near East” which are seen by many as Eurocentric and that perpetuate colonial perceptions of the region. To be more correct geographically as well, from now on let's use:

West Asia.

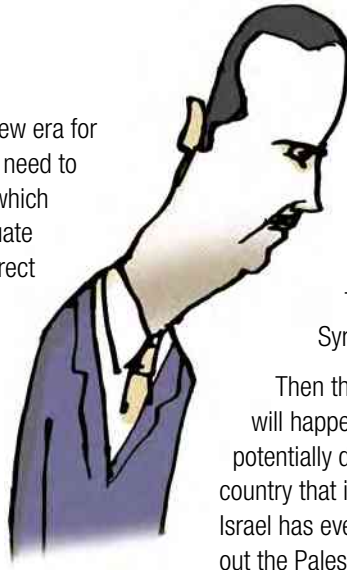
The United Nations already does; so does Canada. Other organizations also have adopted this more balanced definition, such as the West Asia and North Africa (WANA) forum: **WANA instead of MENA**. With time, using West Asia could help unify the nearly 20 countries and over 300 million people of this largely semi-arid region with a common identity and more integrated economic unit.

The “Arab Spring” or “Awakening” is another misnomer that needs to be addressed. The Arab protests that turned into revolts are more reminiscent of *The Autumn of the Patriarch* (1975) by Gabriel García Márquez: the South American parable of a leader being overthrown is analogous to the domino effect of falling Arab dictators being overwhelmed by popular discontent.

Each Arab dictator is going his own way. The Tunisian fled to Saudi Arabia; the Egyptian stayed in his country as the military took over; the Libyan fought to the bitter end against other tribes; the Yemeni fights on against his people; and **the specter of the Syrian** stretches far and wide across the deaths of over an estimated 5.000 citizens in 2011.

Bashar al-Assad never wanted to rule Syria. He spent a stint in the UK studying ophthalmology. His older brother Basil was being groomed by their father, Hafez. But Basil died in a car accident in 1994 and Bashar was called to duty. More soft-spoken than his brother, Bashar and his entourage are unwilling to relinquish the power his father monopolized through and with the military. The Assad leadership is of Alawi origin – a Shia off-shoot – ruling over a predominantly Sunni majority.

Syria is the strategic epicenter of West Asia. What occurs in Damascus will have more drastic repercussions across the region than Qaddafi's demise in Libya. Some say sectarian warfare is already underway; others claim that these are scattered skirmishes resembling the Tahrir Square theater, isolated in the center of Cairo. One thing is certain: civil war in Syria would most definitely spill over.



So there is a certain irony when Jordan's King, the League of Arab States, and Turkey pressure Bashar to stand down: they ask for changes that would reverberate in their countries too. The Kurds are already itching for self-rule in South-East Turkey. Iran could also become more involved inside Syria. That's just the beginning – but Assad must go.

Then there is **the issue of Israel's ties to Europe**. What will happen if Europe enters an economic depression and trade potentially dwindles with Israel? In West Asia, Israel is the one country that identifies more with Europe and the United States. Israel has even built concrete walls and electrified fences to keep out the Palestinians and Arabs at large.

But Israelis speak a Semitic language and many are of Semite origin, as are the Arabs – this creates a huge paradox when one is called an anti-Semite. The sooner Israel makes amends with its neighbors the better for the entire region. Israel has great capacity in technology, including in **the domain of clean energy**. Such capacity could be optimized with more regional trade.

Moreover, European influence in West Asia is decreasing and being replaced by a new foreign policy emanating from the Arabian Gulf countries that are **investing across the region**. This is particularly poignant in Gaza where major reconstruction projects are being funded by Qatar. From Lebanon to Libya now, most Arab countries are experiencing a rise in investments from their fellow Muslims, while Europe is in particularly dire economic straits.

This is a time of **tremendous potential for positive change** across West Asia and North Africa. Harnessing solar power in the Sahara Desert can provide energy for all of Europe and Africa. The strongest winds in the world come off the Atlantic as well. This energy can be captured and used efficiently to bring clean water to more people, while using the by-product of ‘green’ hydrogen as a renewable source of energy (see the Sahara Wind Project, pp. 50-56).

With this Winter issue, Revolve Magazine is now being distributed in **Turkey** and **Lebanon**, thus expanding our presence in West Asia. Our forthcoming special report on **water** will then take you **around the Mediterranean** to see the effects of urbanization, climate change and pollution, as well as some local and regional solutions to the looming water crisis.

Stuart Reigeluth
Founding Editor

"Peripheries are nowhere, centers are everywhere."
– adapted from *Ficciones* by Jorge Luis Borges

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CONTENTS

06 | Kashmir Calling

Bordering Afghanistan, China, India and Pakistan, Kashmir's status needs to be resolved to help bring stability to the contested and volatile region of **Central Asia**.

14 | Bye-Bye Brother Leader

With the fall of **Qaddafi**, the future of Libya is wide open – and for many that means not looking back.

24 | Achcar: On the Arab Protests

An exclusive interview with the internationally renowned Lebanese scholar, **Gilbert Achcar**, on the causes and effects of the Arab protests across **West Asia and North Africa**.

32 | Shifting Powers along the Nile

Despite greater cooperation along the Nile, population growth, climate change and agricultural developments place growing pressure on the river's historically contested waters.

40 | Waiting for Western Sahara

UN Resolution 1979 (2011) does not bring sovereignty any closer for the **Saharawi people**, nor does it promote human rights – it merely endorses the **Moroccan monarchy**.

50 | Harnessing Sahara Winds

Wind energy can provide clean water for more people, while hydrogen, a 'green' by-product can be used for electric mobility. That's what the **Sahara Wind Project** is doing now.



06



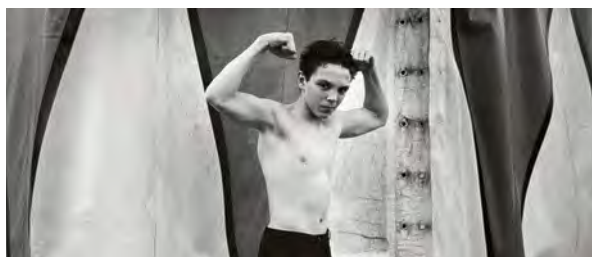
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24



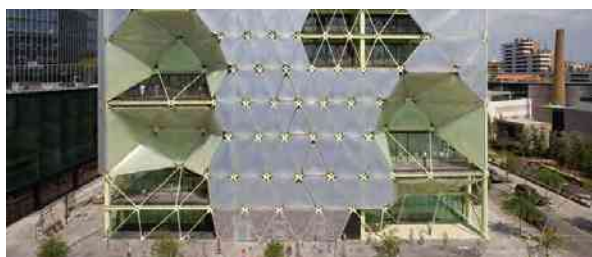
40



59



78



89

57 | Made by Renewables

A new company called **WindMade** was launched at the end of 2011 to promote the branding of renewable energy products.

59 | Views: Portfolio

"The Other Family" by the Italian photographer, **Nicola Lo Calzo**, depicts the lives of marginal characters on the outskirts of contemporary society.

72 | Fiction: 20 Years Later

Belgian writer, **Edgar Kosma**, personifies the empty apprehension of a man about to be released from prison after 20 years.

78 | The Plastic Reef Project

Part I of II: **Maarten Vanden Eynde** sails the five oceans to collect plastic and create a large sculpture to raise environmental awareness.

84 | The Happy Hollows

From their studios in Los Angeles, the California Indie rock band reveals the secret of their inspiration – it's something in the way **Sarah Negahdari** sees the world...

89 | Barcelona: Urban Habitat

Deputy Mayor of **Urban Habitat**, Antoni Vives, says "Barcelona will be a self-sustainable, hyper-connected, zero-emissions metropolis". Here's what happening.



KASHMIR CALLING

A WEDDING UNDER CURFEW

Writer: Paul Cochrane
Photographer: Julia Hyde

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House boat on Lake Dal, Srinagar, January 2009.

It is mid week, the middle of the day and the streets of Srinagar are deserted. It could be 3:00 in the morning when only the occasional person is seen and the odd shop open. For five months in 2010 it was like this four out of every six days. The Quit Kashmir Movement and All Parties Hurriyat Conference call for a *hartal* (strike) to demand *azadi* (freedom) and the Indian military responds by imposing a curfew to prevent the Kashmiris from demonstrating. Road blocks are put in place, military vehicles move into strategic positions and troops go on patrol.

The violence in 2010 claimed over 100 Kashmiri lives when the Indian Army

HEAL KASHMIR WITH ART

Founded in 2010 by Haseeb Ul Nabi, Heal Kashmir with Art is a collective that brings together Kashmiri artists to show their work and offer an alternative outlet to the violence and sorrow that has plagued Kashmir for decades. For more details, see the profile interview by Paul Cochrane with Haseeb Ul Nabi: www.revolve-magazine.com/category/art/



sparked the unrest by shooting at unarmed demonstrators on June 11. This violence has occurred most often when the Kashmiris challenge the curfew, swarming to junctions and the major arteries of Srinagar, with young men – and women – throwing projectiles, chanting slogans and, in general, resisting India's occupation. The slogans painted and chalked on roads, walls, shop shutters and in the grime of car

the Treaty of Amritsar in 1846. In exchange the British retained supreme control of the Valley.¹

A hundred years later, Britain was instrumental in the Partition of Pakistan and India. Subsequently, Pakistan invaded and occupied Kashmir in October 1947 and Britain lobbied at the United Nations in favor of Kashmir becoming a Pakistani province.

"the main issue was who would control the main artery leading into Central Asia." — Ernest Bevin

Foreign Secretary Ernest Bevin told US Secretary of State George Marshall that

windows are mostly in English: "Freedom", "Go India Go Back", and "Go Indian Dogs".

The Indian Army is predominantly made up of Hindi speakers, with little Kashmiri known, certainly not the alphabet. Kashmiris are conversant in Hindi but lack literacy skills, so the default language of both sides – and useful for international media attention – is that of the former colonizer, Great Britain, which is indeed responsible for laying the seeds that grew into the current crisis in Kashmir.

"the main issue was who would control the main artery leading into Central Asia." The Chancellor of the Exchequer Hugh Dalton stated that, Pakistan was central to Bevin's ambition to organize "the middle of the planet."²

During its occupation of India and following the first Sikh War of 1845-46, Britain was struggling to administer the remote territory of Kashmir. Both the Raja of the Jammu region, (adjacent and the south-east of Kashmir) and Prime Minister Gulab Singh of the Sikh government in Lahore, (present-day Pakistan), had refused to side with the Sikhs. As a solution, the British rewarded Gulab Singh, an upper-caste Hindu and ethnic Dogra, by appointing him Maharajah of Kashmir and selling the Valley of Kashmir for 7,500,000 Rupees at

On the two days when there are no strikes or curfew, Srinagar turns into a mad-house, with people trying to pack a week's business into 48 hours and families stock-piling food for the inevitable next shutdown. At that time, this was the Kashmiri status quo. In the midst of all this, a wedding was to take place, but the guest list was to prove rather unpredictable and the ongoing situation generating a rather somber tone to the celebrations.

1. Iffat Malik, *Kashmir: Ethnic Conflict, International Dispute*, Oxford University Press, 2002.

2. Mark Curtis, *Secret Affairs: Britain's Collusion with Radical Islam*, Serpent's Tail, 2010.

Gilani is On Board

I had been to Kashmir before in slightly more 'normal' times; at least there were no curfews. While there were some tourists, they were not on the scale of the 1970s and early 1980s. Kashmiris I had met in Srinagar on my first visit had family members in New Delhi that I later befriended and stayed with on return visits. It was this extended family, which shall go under the pseudonym of Manzar due to the very valid fear of repercussions from the Indian authorities given their opinions on the occupation, who invited me to the wedding of one of their daughters.

Flying to the Vale of Kashmir was a better option than enduring again a 24-hour, 1,000 kilometer bus journey between

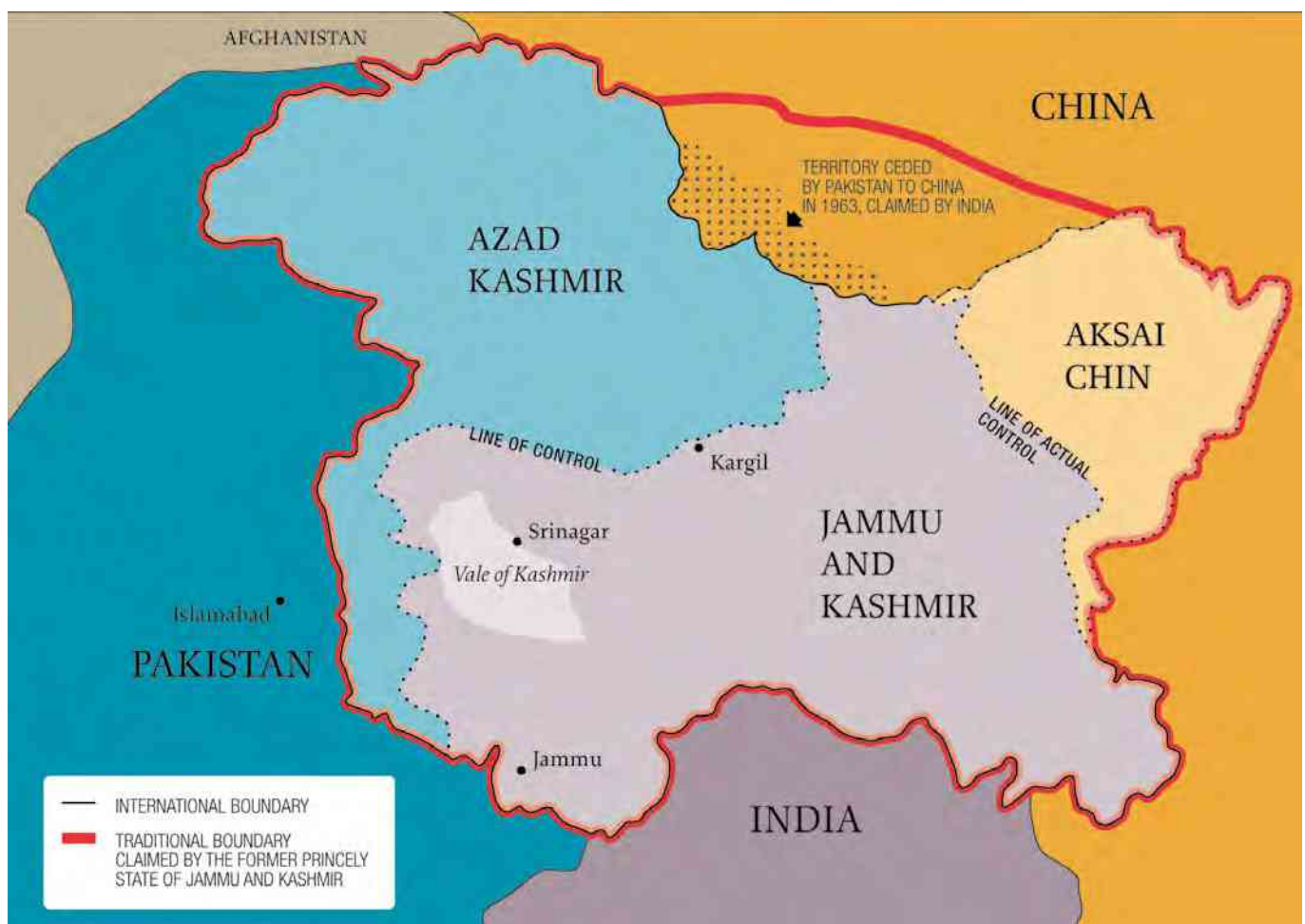
New Delhi and Srinagar. One of my fellow travellers was Sayyed Ali Shah Gilani, Chairman of the Hurriyat Conference (HC). He was warmly greeted by the Kashmiris waiting at the departure gate with handshakes and smiles all around. Gilani was clearly admired for his decades-long game of cat-and-mouse with the Indian government and his calls for *hartals* and demands for *hurriyat* (freedom).

On arrival in Srinagar, Gilani was detained by the authorities and later placed under house arrest, contributing to some 140 days spent in the confinements of his property during 2010, along with 40 days of imprisonment under India's Public Safety Act. One of the Manzar's com-

mented: "It is a part of daily life for him, like having a cup of *chai* (tea)."

As a foreigner, I had to register at the airport with an Indian intelligence plainclothes man, and while being greeted by the Manzars, was questioned by a Kashmiri tourist policeman in a disheveled uniform, who took down my particulars as "Mr. Paul from Ireland." It was a quick drive through the empty streets of Srinagar to the Manzar's three-story home near Lake Dal. I related to them that Gilani had been on the plane, but for reasons indicative of the sectarianism, that is as plentiful in Kashmir as in the rest of India, this aroused little curiosity.

This is not the Muslim-Hindu *fitna* (discord) that has flared off-and-on in Indian politics since the 1947 Partition with Pakistan. A recent controversial government paper has shown that Muslims are under-represented, politically and socially disadvantaged in India. In Kashmir, one million Hindu Pandits were forced out over





Shikara on Lake Dal, Srinagar, January 2009.

the years due to religious extremism and the perception that they sided with the predominantly Hindu national government rather than with Kashmir.

While this is a lingering scar, contemporary Kashmiri sectarianism is between the majority Sunni population and the Shia, the latter only having marginal political representation in the Hurriyat Conference (HC). It is a similar story for minority Shia in other Islamic countries, such as neighbouring Pakistan, Afghanistan and Saudi Arabia, and an issue in countries where the Shia are in the ascendancy, namely Bahrain and Lebanon.

"I don't like Gilani," said Reza, the brother of the bride-to-be. "Gilani hates Shias." This is not to insinuate that the Manzars dislike Sunnis – indeed, Reza is engaged to a Sunni and one of his father's best friends is a Sunni – rather the Shia feel discriminated against by Gilani and other sectarian leaders. Division has become a hindrance for the Kashmiri resistance, as

it has with every other occupied people, such as the Palestinians, when the occupying and neighboring powers successfully drive a wedge between, and pit the locals against, each other.

The extent to which this occurred was highlighted in January 2011 by the chief spokesman of the HC, Abdul Ghani Bat. At a Jammu and Kashmir Liberation Front (JKLF) seminar he spoke out against the murders of Kashmiri intellectuals by "unidentified gunmen", notably Mirwaiz Mohammad Farooq, father of Mirwaiz Umar Farooq, the current chairman of the All Parties Hurriyat Conference, killed in 1990; Abdul Ghani Lone, lawyer and politician, killed in 2002; and Professor Abdul Ahad Wani, JKLF ideologue, killed in 1993.

"Lone Sahib, Mirwaiz Farooq and Professor Wani were not killed by the [Indian] army or the police. They were targeted by our own people," said Ghani Bat. "The story is a long one, but we have to tell the truth. If you want to free the people

of Kashmir from sentimentalism bordering on insanity, you have to speak the truth... Here I am letting it out. The present movement against India was started by us killing our intellectuals... wherever we found an intellectual, we ended up killing him."

Internal Kashmiri rifts have been exacerbated by Pakistan's notorious Inter-Services Intelligence (ISI) sponsorship of militant groups and bank-rolled by Saudi Arabia spending over \$50 billion globally in the past decades... ever keen to export its version of fundamental Islam – Wahhabism. Pakistan, supported financially by the unlikely trio of China, Saudi Arabia and the United States, has backed Kashmiri militant groups for over 30 years. Former Pakistani President, Pervez Musharraf, admitted in October 2010 in London that the ISI set up such groups in the 1980s and early 1990s to attack India. As former Indian Ambassador Narendra Sarila said, "many of the roots of Islamic terrorism sweeping the world today lie buried in the Partition of India."

Azadi

In 1989, a popular rebellion – a Kashmiri *intifada* – against Indian misrule began, further stoked by militant Islamic groups connected to the ISI in the wake of the end of the Soviet occupation of Afghanistan which sent scores of Afghan veterans and Pakistani Kashmiris across the Line of Control (LoC) that separates Indian Jammu and Kashmir (J&K), and the Pakistani Azad (free) Kashmir. China has the remaining 20 percent called Aksai Chin, which is claimed by India (see map on p.8). This proxy war between Pakistan and India, that remnant of the 1947 Partition, put the Kashmiri populace in the middle. Intifada after intifada has occurred since 1989 and the Indian Army has cracked down hard, notably in 2001, when over 1,000 civilians were killed. Over 45,000 Kashmiris have been killed since 1989.

In August 2011, 2,156 bullet-riddled bodies were found in unmarked graves across Kashmir following a three-year investigation by the Jammu and Kashmir State Human Rights Commission. According to the report, the bodies were of unidentified militants, but 574 were identified as civilians. “There is every probability that these unidentified dead bodies buried in various unmarked graves at 38 places of North

Kashmir may contain the dead bodies of enforced disappearances,” the report said.

Thousands of people have disappeared in Kashmir over the past two decades, predominantly young men. Some joined militant groups and were killed in action. Others were killed or detained by the Indian authorities, leaving wives and families in an agonizing limbo as to whether their men are still incarcerated or dead.

One major difference in 2010 from former crises when feelings rose to a boiling point and Kashmiris took to the streets is that this time there was minimal militancy – apart from the stone-throwing and rioting. Sympathy with the militants has waned – particularly for Pakistani-backed groups – but anger with New Delhi’s political dillydallying and iron fist policy in tackling the “Kashmir issue” has augmented. The youth are not interested in siding with New Delhi or Islamabad. The youth want independence, or, at least, more autonomy from India.

A poll released in May 2010, carried out by Chatham House on both sides of the LoC, affirms that just 2 percent of respondents in J&K want to join Pakistan, and only 28 percent want to join India. More

than four in 10, or 43 percent of the total adult population, want independence, particularly in the Kashmir Valley Division (between 75 and 95 percent), and 82 percent of those polled in Srinagar (in Jammu just 1 percent, Leh 30 percent and Kargil 20 percent). Some 44 percent of Pakistani Kashmiris also want sovereignty over their own affairs.³

Such results show the overwhelming desire of the estimated 12 million Kashmiris for independence. However, this in itself poses a particular problem. The options for the Kashmiris are entangled with UN resolutions dating back to 1948-49 that call for a referendum to take place for the people to decide whether they want to join India or Pakistan. If the survey reflects accurately the opinions of the people, the Kashmiris want neither, but rather prefer total independence. But independence for Kashmir is the last thing Islamabad or New Delhi want, despite talks between the two sides that have been on-and-off since 2003 and gained new momentum in 2011.

India champions itself
at 'the world's largest
democracy' so it would
be fitting to call for a
referendum on what the
Kashmiri people
really want.

K is for Kashmir

The religious dimension of the Kashmir conflict, sandwiched between Muslim Pakistan and predominantly Hindu India, has deeply ingrained their mutual hatred over the past 65 years. Pakistan is against an independent Kashmir that would unite both sides and thus lose direct access to China, not to mention a major dent to its pride and the powerful military that forms the backbone of the Pakistani nation. Azad Kashmir is integral to Pakistan. The country’s name means “land of the pure” and is an acronym, according to the general saying of: P for Punjab, A for Afghanistan, K for

Kashmir, and STAN for Baluchistan. Take out the K and Pakistan would have a different meaning. India’s Hindu populace – which has become far more radical and militant over the past 20 years – would equally be against losing a major part of the Northern provinces, especially to Muslim rule.

International observers are calling for the LoC to become an international border with joint institutions developed. The U.S. wants to partake in ‘quiet diplomacy’ to maintain its relations with Islamabad and continue to develop alliances – particularly military

and nuclear power – with New Delhi. Meanwhile, Britain wants to wash its hands of the seemingly intractable problem it created in the Indian subcontinent. In 2010, when British Prime Minister David Cameron was called on to mediate over Kashmir, he said: “I don’t want to try to insert Britain in some lead role where, as with so many of the world’s problems, we are responsible for the issue in the first place.”

With international mediation, or as some may see it, interference, not likely to happen for numerous reasons, a far more radical solution is necessary. India champions itself at “the world’s largest democracy” so it would be fitting to call for a referendum on what the majority Kashmiri people really want rather than what New Delhi, its puppets and the dynasties want. Young Kashmiris think with peace this could work. The state has abundant land and resources and more than enough people for a viable country, plus a flourishing tourism sector. Kashmir is land-locked and would require the good will of its neighbors – the very same from which it would secede – for trade to become viable. Unified with Azad Kashmir, a free Kashmir would have access to the large markets of China and Central Asia.

But India is not ready. The diabolical Armed Forces Special Powers Act (AFSPA) continues, permitting soldiers, quite literally, to get away with murder. There are no investigations, and an atmosphere prevails

of shoot first and question later. Torture is widespread and confirmed by U.S. cables released by Wikileaks. Visits to detention centers between 2002 and 2004 by the International Committee of the Red Cross (ICRC) revealed cases of beatings, electric shocks, sexual abuse and other atrocities.

Out of the 1,296 detainees interviewed by the ICRC, more than half said they had been tortured. Out of 681 detainees, 498 claimed to have been electrocuted, 381 said they were suspended from the ceiling, and 304 cases were described as “sexual.” A total of 294 described a procedure in which guards crushed their legs by putting a bar across their thighs and sitting on it, while 181 said their legs had been split apart.

Peaceful activists are also being targeted. In 2010, Mian Qayoom, president of the Kashmir Bar Association, was arrested under the Public Safety Act for protesting human rights violations and sentenced to two years in jail, while peaceful protest-

ers engaged in sit-ins are accused by the police of “offences” and “disobedience to order duly promulgated by public servants,” while others were accused of spouting “anti-national slogans.”

The most sensational case was Booker Prize winning author and activist Arundhati Roy, who along with Gilani and five others, was jailed for “sedition” for making anti-India speeches at an event in Srinagar. Roy said of the charge in late 2010, that it “is meant to frighten civil rights groups and young journalists into keeping quiet.”⁴

3. Robert Bradnock, *Kashmir: Paths to Peace*, Chatham House, 2010.

4. For more details on internal Indian politics and India’s policy towards Kashmir, read: Arundhati Roy, *Listening to Grasshoppers, Field Notes on Democracy*, Penguin Books, 2009.

Life on the water in Srinagar, January 2009.





Abandoned house on Lake Dal, Srinagar, January 2009.

Hydro-power provides electricity to New Delhi and the populous state of Punjab while Kashmir experiences power shortages.

“Suspect All, Respect All”

A slogan on an army road block says: “Suspect All, Respect All”. This is India’s policy in Kashmir, although leaning toward “suspecting” rather than “respecting”. The slogan drew smirks from the young Kashmiri men I was with in Srinagar, as they witnessed little respect from the authorities. They related how during curfews Kashmiris were pulled for no reason from their vehicles at checkpoints and beaten by soldiers. They described how at *hartals* the army used live ammunition on the unarmed protesters. During curfews, sticking one’s head out of your front door could result in a beating. There was a sense of despondency about the situation being rectified anytime soon.

One of the failures of New Delhi regarding

Kashmir is how little it has done to endear Kashmiris towards India. There has been no “nation-building” or investing in infrastructure to improve living standards. Kashmiris view the Indians as exploiting their land, natural resources and water. Hydro-power provides electricity to New Delhi and the populous state of Punjab while Kashmir experiences power shortages.

A major shortcoming is providing employment. Recent statistics show that 590,000 educated youth in the state are unemployed, while in the Chatham House survey in J&K, 81 percent of those polled said the most significant problem was unemployment, with government corruption and poor economic development in second and third

place respectively. This could change in the coming years following the November 2011 decision by Pakistan to grant India Most Favored Nation trade status, which could bolster bilateral trade from 2010’s \$1.4 billion. Much of this trade would no doubt go through Punjab rather than Kashmir due to inadequate infrastructure on both sides of the LoC.

The lack of work in Kashmir was reflected by the Manzars, their friends and extended family. With no opportunities in Srinagar, the men had to work elsewhere in India to earn decent wages; others went to Singapore, Dubai and Australia. This did not mean the problems of Kashmir disappeared. The Kashmiri diaspora in India

keep up with what is happening through Kashmiri TV channels and newspapers particularly by following terrorist attacks in the capital due to fear of anti-Muslim and anti-Kashmir attacks.⁵

Due to the virulent anti-Muslim prejudices of the Indian media, which jumped to conclusions that Muslims were behind the majority of bombings in New Delhi in 2007 and 2008, one of the Manzars living in the capital refused to go out on the streets for fear of arrest. Subsequent evidence has shown that in several cases it was right-wing Hindus behind the bombing rather the familiar culprit of radical Islamists.⁶ Investigations have also shown the deep-seated prejudices within the police and security apparatus against Indian Muslims. A WikiLeaks cable showed that prominent politician Rahul Gandhi told the U.S. Ambassador in 2009, that while “there was evidence of some support for [Islamic terrorist group Laskar-e-Taiba] among certain elements in India's indigenous Muslim community, the bigger threat may be the growth of radicalised Hindu groups, which create religious tensions and political confrontations with the Muslim community.”⁷

They related how during curfews Kashmiris were pulled for no reason from their vehicles at checkpoints and beaten by soldiers. They described how at hartals the army used live ammunition on the unarmed protesters.

5. For more on the Kashmir diaspora, read the excellent fictional account by Salman Rushdie, *Shalimar the Clown*, Vintage Books, 2005.

6. Simon Denyer and Rama Lakshmi, “Hindu terrorism charges force India to reflect on prejudices against Muslims”, *The Washington Post*, March 12, 2011.

7. “Ambassador warned that radical Hindu groups may pose bigger threat than LeT in India”, *The Guardian*, December 16, 2010.

Wazwan!

Weddings in Kashmir are major social events, bringing together families, friends and neighbors. They are one of the few positive occasions to integrate the diaspora. Weddings are protracted events, with visits and gift-giving ceremonies between the families of the bride and groom that go on well before the wedding day and into the following weeks. The festivities take place separately for the bride and groom who are united only on the wedding day once the imam has formalized the marriage.

The wedding day requires days of preparation with at least 20 cooks working for two days on the menu, the famous *wazwan* of dozens of dishes. Some 25 sheep, 70 chickens and 100 kilos of rice are prepared for the 280 guests, all cooked in various methods on open fires. Huge meatballs, called *gostaba*, are cooked slowly in sweet milk. Grilled chicken, stewed mutton, and skewered kebabs are also served.

The morning of the wedding, Reza gets a phone call from a guest asking about the extent of the curfew. “Is the entire valley under curfew?” he asks the other seven

men in the room. Yes, the whole valley. One of the guests managed to get through the checkpoints by showing his wedding invitation, but he had to go through 12 checkpoints and take alternative routes when the Indian Army would not let him through at certain road blocks. Twelve checkpoints to cover less than 15 kilometers.

Reza keeps getting calls throughout the day with cancellations and questions about the checkpoints. There is no text messaging as the Indian authorities have banned SMS in Kashmir. Will the groom make it tonight? “*Inshallah* [God willing]...” The curfew tends to be stricter in the morning. The preparations continue, the people are resigned to disappointment, yet they tell

jokes and drink *chai*. The Kashmiris are used to waiting, sitting, talking and passing the time – no jobs, schools closed, no business, and nowhere to go.

The wedding day progresses without problems and with enough guests to fill the large tent assembled in an uncle's garden and the groom arrives that evening. The *wazwan* is consumed quickly, but without a jubilant atmosphere due to the curfew. In the past, said the elders, the *wazwan* would have been eaten slower with the festivities continuing for five days rather than just two. Reza's uncle remarked that he was one of the last to get married the old way before the troubles erupted in 1989.

The end of the wedding is however different from tradition. Usually dozens of cars accompany the new couple to the groom's house, but Reza forbids too many from going due to the curfew. While the Indian Army says they “respect all” they do not allow for special circumstances during curfews, even weddings.

In 2011, the Indian-administered Kashmiris have kept up the struggle for their rights and for freedom. To have effect, the *hartals* must continue in Azad Kashmir. Delhi will have to meet with the Kashmiri leaders instead of continuously imprisoning them and enter into constructive dialogue with Pakistan. Until a viable solution is enacted, Kashmir will remain a bleeding wound of Partition and a paradise lost. The beauty of the snow-capped lower Himalaya mountain-range, and the rivers and forest, are sadly a mask for the oppression and violence that has torn apart and continue to torment Central Asia. The late Kashmiri poet, Aha Shahid Ali, wrote from his death-bed in the U.S. in 2001, a poem dedicated to a Kashmiri Hindu friend:

We shall meet again, in Srinagar
By the gates of the Villa of Peace
Our hands blossoming into fists
Till the soldiers return the keys
And disappear.

Investigating the crimes committed during Qaddafi's regime is not a priority for the new Libyan authorities who are now moving to rebuild a new state from scratch.

“ We did not see my brother's body, but we saw Qaddafi's cadaver. And that's enough – today Libya is free.” Mohammed Mersal recalls that during 18 years he believed that his brother, who was incarcerated in the Abu Slim prison, was actually still alive. Faraj Salem, 23 years old, was arrested in a Tripoli mosque and detained in Abu Slim in 1991. His family was able to visit him in prison only once. Later, every time his family brought Faraj food, clothing and medicine, the prison guards collected the packages so the family would believe that he still received them. This charade continued until 2009 when the Libyan regime finally publicly acknowledged that 1,270 people had been executed in Abu Slim prison on June 29, 1996. Among the executed was Mersal's brother. A sequence had come full circle in 2009, and with Qaddafi's death, the collapse of 42 years of dictatorship closed another.

Abu Slim prison is one of the places most visited by Libyans during the war. It is a 'museum of horrors' – a living example of an obscure and repressive regime. Rebel militias hit the site on August 24, 2011, and its prisoners were freed – most were political prisoners. Its empty cells, torture chambers, and files containing prisoner records scattered on the ground shed light on the previously silenced abuses of a regime as oppressive as it was opaque. With the Libyan capital, Tripoli, conquered, ragtag groups of Qaddafi loyalists were all that remained of the Colonel's regime, which collapsed after six months of NATO bombings and street fighting. However, the whereabouts of the Brother Leader, Qaddafi's sons, and his top associates, was still unknown.

The National Transitional Council would not consider the war won until the complete fall of Qaddafi. In September, the rebels conquered Sirte, Bani Walid, and Sebha – the Colonel's last bastions. Qaddafi was born in Sirte. Bani Walid and Sebha were known for their feverous support of the dictator. The final chapter was written on October 20, when a group of rebels found Qaddafi hiding in a culvert on the outskirts of Sirte. Obviously, it was the last place anyone expected to find the fleeing leader. That morning, NATO



LIBYA:

Bye-Bye Brother Leader

Writer: Rosa Meneses
Photographer: Jure Erzen

Rosa Meneses is an award-winning journalist at the Spanish newspaper *El Mundo*. She covered the upheaval in Libya from the first protests to the fall of Qaddafi. Translated from Spanish by Hanan El-Youssef.

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Libyan rebels at a checkpoint on the main road to Brega, 10 km west of Adjabia, April 2011.

bombed a convoy of vehicles containing Qaddafi loyalists fleeing the imminent fall of the city. A few loyalists managed to escape from the vehicles, but the NATO aerial sorties had paid off.

The militants showed no mercy: they shot the dictator, who allegedly died in transit to a hospital. Qaddafi's bloody body was displayed for five days in Misrata as a war trophy. After eight months of war, Libyans made pilgrimages to Misrata, where Qaddafi's and his son Mutassim's remains were exposed, in order to see with their own eyes the end of the man who embodied so many of Libya's ills.

Mersal's satisfaction upon seeing Qaddafi dead was discrete in comparison to the exhilaration of most Libyans. "They should have hung him in Green Square so that everyone could spit on him," says Mohammed Bakhbakhi, owner of the Library of Tripoli and Sebha. "It does not matter to us that he was not judged. He killed thousands of our children. Any judge would have been unjust," declares Abdullah Banun, lawyer in Tripoli. Intellectuals and parishioners, all agree that Qaddafi deserved the end he received. Few would have preferred to see him behind bars and prosecuted for his crimes. Those who defend his death argue that this was easier for Libya. Many believe

that Qaddafi was "not a good Muslim" and therefore deserved such treatment. Popular rejection has a psychological explanation: Libyans are trying to declare that the one who served as leader for four decades was not one of them.

Qaddafi was buried five days after his death in an undisclosed location. The new authorities did not want his grave to become a place of pilgrimage for any remaining loyalists. They wanted to prevent and negate any season of glory. The National Transitional Council rejected the requests of some international organizations to initiate an investigation regarding whether or not Qaddafi's death was an



Libya now faces
the abyss of its
own future.



(Left) A destroyed tank at the same checkpoint 10 km west of Adjabia, April 2011.
(Right) Libyan rebel soldiers parading through the streets of Benghazi, April 2011.



extrajudicial execution. The autopsy conducted on his corpse confirmed the presence of a gunshot wound to the head and another to the stomach. A rebel commander admitted that his militiamen killed Qaddafi in the heat of the moment. But nothing is known of the NTC's pending investigation.

Qaddafi had called the opposition "rats" and threatened to hunt them "room by room, house by house, street by street" — a refrain that became famous in pro-Qaddafi songs since he pronounced it last March. Qaddafi fulfilled his will to fight to the end. The tyrant had rejected the idea of exile, and he made certain he would die on his land. Perhaps this was the only promise Qaddafi made to the Libyans that he upheld. And with Qaddafi, not only did the man die, but the system as well. This system (for 42 years) oppressed those who thought differently, uprooted the values of a tribal and traditional society, created a state destitute of institutions, installed corruption in hearts and minds, and devalORIZED the intellectual capacity of an entire nation. Libya now faces the abyss of its own future.



Doctor Feisal Krekshi, the new provost of the University of Tripoli, recognizes that Libya is at 'year zero.' A state must be created from nothing. "The most important element is to establish law and order. Basing ourselves on the law, we can build a state, but the process is enormous. Democracy is good as long as it is implemented in the correct manner. Otherwise we will be doomed in a new dictatorial system or in total anarchy," affirms Krekshi. Part of the work to be done in Libya should be "post-war reconstruction," he continues and admits that "we do not have a government on the ground nor structures of control."

The transformation of the university constitutes an example of how Qaddafi co-opted the national institutions. The new provost explains that "the university under Qaddafi's regime was not a place of learning; it was a lieu of repression and propaganda." In the 1970s and 1980s, students and professors calling for freedom were detained and publicly executed in the university. "On that campus, students were executed in

public and others were tortured. During the regime, an annual anniversary celebrated the hanging of a group of students,” confirms Provost Kreshki in reference to April 7, 1977, the day on which two university professors from Benghazi were executed on campus – Omar al-Dabub and Mohamed bin Saud – for having participated in student demonstrations the previous year. Colonel Qaddafi presided himself over the hangings. The lunacy of the eccentric leader culminated in reserving the month of April for the persecution of students, professors, and other suspicious opponents of the regime.

The macabre anniversary – commemorated with scaffolding – has its origins on April 7, 1976, when Qaddafi ordered the Revolutionary Committees to persecute students of the opposition. Ever since, April 7 – indeed the entire month – was feared in classrooms. “Student executions occurred in 1976, 1977, and 1984. The only crime of those youth was to express their desire to be free,” adds Krekshi. “It was a way to intimidate the youth”.

In many cases, the gallows arrived years after detention without trial. Thus, Rashid Kabar was executed on April 16, 1984, in the Faculty of Pharmacy. Fellow students were

forced to witness his execution. Kabar was detained in 1980, accused of following the mufti Beshti – himself detained and assassinated by the regime. Today, the university auditorium nominated by Qaddafi as the Green Room has been re-baptized with Kabar’s name.

The University of Tripoli is reinventing itself. While the youth put down their Kalashnikovs and return to campus, Kreshki’s priority (and that of his team) is to renew the curriculum of the university, which was “90 percent contaminated by” the message of the *Green Book*.



(Top) Cheering crowds greet Libyan rebel soldiers as they march through Benghazi, April 2011.

(Bottom) Posters of hundreds of Qaddafi’s victims on the city walls of Benghazi, May 2011.

On that campus, students were executed in public and others were tortured. During the regime, an annual anniversary in April celebrated the hanging of a group of students.



(Top) After evening prayers in Benghazi downtown, May 2011.

(Bottom) Libyan rebel on the main road to Brega, April 2011.



This tract – Qaddafi’s political bible – no longer occupies a place of privilege in centers of teaching as it did during the dictatorship, when students took dedicated courses repeating the extravagant theories of the Brother Leader. The students of the University of Tripoli organized a symbolic bonfire where they burned hundreds of copies of the *Green Book*. However, Kreshki prevented the students from destroying all copies: some will be recycled and others will be used as a reference in history studies.

Kreshki, a professor of medicine who has worked for years on this campus, maintains that:

investigating the crimes of the dictatorship is not a priority. The most important is to establish law and order. Then demolish the system that Qaddafi constructed and form an intellectual elite. We do not have a government yet...

The university purge – with a high percentage of acolytes of the former regime – is also an example of how difficult reconciliation will prove in Libya. The former provost is under house arrest, while the extent of

his adherence to the regime remains under investigation. The 5,000 university professors will also undergo such investigation.

“There is a high concentration of Qaddafi loyalists at the university because it was a place where people were selected based on the degree of their loyalty,” admits Kreshki, who estimates that less than 5 percent of the Libyan population is still in favor of the former regime. In addition to the ‘un-Qaddafication,’ the new Libya will have to remedy the growing tensions between the East and West, between Arabs and Amazighs, between civilians and the military.



Another symbol of Qaddafi's fallen dictatorship is the broken center of Bab al-Aziziya and its grayed and busted walls that attest to the remains of a regime that has already passed into history. Situated in the heart of Tripoli, this compound was the center of power for decades. From this enclosure Qaddafi and his acolytes governed. During the popular uprising, the regime organized huge, nightly demonstrations complete with people waving green flags – the official symbol imposed by the Colonel – chanting slogans in favor of the Brother Leader. For months, the system led dozens of journalists to this site to bear witness to Libya's support for Qaddafi. Today, the place bears no trace of those forces.

On August 23, the fighting reached Bab al-Aziziya, which was conquered a few days later. The compound was converted into a place of pilgrimage for hundreds of Libyans who roamed the courtyard and entered the old mansion hidden by a wall. They wanted to see how the dictator had lived as they entered the kitchen, perused the books on the bookshelves of the ample salon or looked into bedrooms. The house was soon empty, as people took whatever goods and chattels they could: sofas, polychrome wood tables, luxuriously bounded books...

The rebel youth traveled the subterranean tunnels, which connected the various edifices of Bab al-Aziziya. They took photographs of each other and inscribed the names of their towns of origin. The Museum of the American Bombing of 1986 – an edifice that stood opposite the infamous statue of a fist crushing a plane – has been converted into a museum of the revolution. The effigy was transferred to Misrata where it is exhibited as a war trophy.

Bab al-Aziziya is now a popular market, full of chickens where vendors sell clothes and spare parts. Libyans have converted a place that symbolizes decades of oppression. It is surprising how quickly Libyans want to shed the symbols of their own history. No one thinks to conserve those symbols or to maintain the thousands of files and records that have been left unpro-

tected in facilities such as Bab al-Aziziya – which also housed the Secret Services (*mukhabarat*) – or the sinister Abu Slim prison. Those documents tell the story of thousands of repressed, blackmailed, and spied-upon Libyans. There are thousands of photographs, records, telephone call transcripts, voice recordings...

The *mukhabarat* building in Zawiya Street could in itself serve as a monument to the dictatorship. The rebels who guard it grant access to foreign journalists on the condition that they do not photograph anything. The information in this edifice cannot be grasped. It would take years to carry out an investigation, let alone arrive at conclusions regarding the disappeared, detained, and assassinated. Every single Libyan has a record in there. And yet, of the thousands of papers and files, no one is protecting and addressing these dossiers about all the crimes committed by Qaddafi's system.

On the contrary, the rebels guarding the building open envelopes containing hundreds of black-and-white photographs and spill them on the floor. It serves no purpose to recall that these documents are part of a shared history. "How many years will we need to decipher all this?" asks one of the rebel guards. The building was partially damaged by a NATO bombing, but it is still here that all those documents are kept in rooms full of shelves. "Do you understand

now why Qaddafi stayed in power for 42 years?" the rebel guard asks.

Human Rights Watch advised of the importance of securing all these archives, "which can reveal what has occurred in Libya in the last 42 years," says Peter Bouckaert, an investigator for the international non-governmental organization. "The National Transitional Council has the obligation to protect them [the archives]. They are the key to answering many questions," he adds. Questions, such as what happened to the imam Musa Sadr, who disappeared in 1978 in Libya.

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Sadr, religious leader of the Shia community in Lebanon, founded in the 1970s 'the Movement of the Disinherited,' the backbone of the Lebanese Amal party. In 1978, invited by Qaddafi himself, Sadr visited Libya with two assistants. On a flight home via Italy, he vanished. An Italian investigation revealed that Sadr never arrived in Italy. Lebanon continues to demand the clarification of Sadr's fate and has launched a petition addressed to the National Transitional Council.

"It is quite possible that he [Sadr] was executed quite some time ago, but now what truly and actually happened to him can be traced," Bouckaert claims. If the National Transitional Council does not protect the millions of documents exposed in the administrative buildings across the country, cases like Sadr, and many others who disappeared, will never be resolved.

"Do you understand now why Qaddafi stayed in power for 42 years?"



This position on the main road to Brega was attacked constantly by Qaddafi forces, April 2011.

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ON THE ARAB PROTESTS

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Paul Cochrane is a freelance journalist based in Beirut, Lebanon, since 2002. He has reported for over 40 specialized publications about West Asia politics, media and culture: backinbeirut.blogspot.com

Pascal Lemaitre has contributed to *The New Yorker*, *New York Times*, *Wall Street Journal*, and has illustrated many children's books, including four by Toni Morrison. He teaches at La Cambre in Brussels: www.pascallemaitre.com

Paul Cochrane discusses the Arab protests across West Asia and North Africa, with Gilbert Achcar, Professor of Development Studies and International Relations at the School of Oriental and African Studies (SOAS) at the University of London. Of Lebanese origin, Achcar is the author of several books on international relations and West Asia, including most recently *The Clash of Barbarisms: The Making of the New World Disorder* (2006), *Perilous Power: The Middle East and U.S. Foreign Policy* (co-authored with Noam Chomsky, 2007), and *The Arabs and the Holocaust: The Arab-Israeli War of Narratives* (2010).



Gilbert Achcar

THE ECONOMIC FAILURES WERE IN PART DUE TO THE ADOPTION OF NEO-LIBERAL ECONOMIC POLICIES.

Just saying neo-liberal is not enough. Even under neo-liberalism you have some economies that are performing well. So it is the combination of neo-liberal reforms with a general socio-economic structure that is not conducive to development. What has been growing above all is corruption, crony capitalism and a form of capitalist investment that is definitely not enough for the resorp-

We are only at the beginning
of a protracted process of change.

tion of unemployment as it is limited to certain service sectors in the absence of major long-term investment in productive sectors.

INDEED, CAPITAL FLIGHT HAS BEEN A MAJOR ISSUE IN THE REGION, WITH ILLICIT CAPITAL OUTFLOWS ESTIMATED AT \$202 BILLION IN 2009 BY CLEAN FINANCE GROUP GLOBAL FINANCIAL INTEGRITY.

Absolutely. This is a region where capitalism works on a hit-and-run basis, and the run part being capital going abroad, starting with the oil money. If we look at capital outflows of the Gulf monarchies, we see the bulk is going to the U.S. followed by Europe. What remains in WANA is a tiny part of the whole. The general elitist attitude in the region is “take the money and run” – when they don’t consider the country as a private enterprise of their own. The expression “ruling family” applies widely in the region, not just to monarchies, but also to so-called republics like Egypt, Syria, Libya and Tunisia.

DO YOU THINK THE PROTESTS WILL SPREAD FURTHER? AND DO YOU THINK THE PROTESTS WILL ONLY TRULY SUCCEED IF THERE IS CHANGE IN THE REGIONAL ECONOMIC AND POLITICAL POWERHOUSES OF SAUDI ARABIA AND THE GULF?

As for spreading, this is a long process. Even where it achieved an initial victory, there is still a long way ahead until the situation stabilizes. Look at Tunisia and Egypt, especially Egypt, and now Libya, we are only at the beginning of a protracted process of change. It is difficult to make predictions, particularly for Libya after 42 years of a totally repressive regime under which there was no political life: we have no clue about the political currents that will emerge there. Political competition is raging, on a background of social struggle. In Egypt there has been a tremendous amount of workers strikes over the past weeks (since September 2011).

The fate of Yemen and Syria – where uprisings are underway but have not yet won – will determine the pace of movement in the rest of the region.

There are also well-organized protest movements in other countries, less spectacular than in Yemen and Syria, but important nevertheless, like in Morocco and Jordan. In Iraq, despite the peculiar situation there, we have seen a lot of turmoil, mixing social issues and a tense political situation. As for the Gulf monarchies we have Bahrain, the number one case, where the situation is far

WHAT DO YOU THINK THE PRIME MOTIVATIONS WERE FOR THE UPRISINGS IN WEST ASIA AND NORTH AFRICA (WANA)? FOR INSTANCE, ECONOMICS HAS BEEN DOWNPLAYED IN REGIONAL AND INTERNATIONAL MEDIA YET CLEARLY PLAYED A ROLE IN GETTING PEOPLE OUT ON THE STREETS.

No doubt the whole situation in the region has a social and economic background. The social cannot be separated from the economic. This is a region that has had very low rates of growth and development for several decades. It even had negative per capita growth rates in the 1970s and 1980s. The most blatant symptom of this lack of development is that WANA has the highest rates of unemployment in the world, especially amongst young professionals.

This is a region with a lot of under-exploited resources. This creates poverty, which is important in the region when you look at national estimates, not World Bank estimates: from 30 percent of the population in a country like Syria and in Tunisia a quarter, to over 40 percent in Egypt and up to 60 percent in Yemen. Of course it is no surprise with such a poor record that the region would be tense socially and the youth would be rebellious. It took just a spark – the example shown in Tunisia of the possibility of a successful uprising – for the revolt to spread like wildfire everywhere. However, there has been a process of political and social tensions simmering over the last decade in Egypt, Tunisia and Morocco. But not in Libya or Syria or the Saudi kingdom, where any struggle is harshly repressed.



Yemeni women (left) and soldiers (right), Sana, Yemen, August 2011. Source: Al-Jazeera.

The fate of Yemen and Syria – where uprisings are underway but have not yet won – will determine the pace of movement in the rest of the region.

from being resolved and protests are carrying on. Oman has seen social protests, and the outcome in Yemen will affect the rest of the Gulf, including the Saudi kingdom due to the close connections between Yemen and the Saudis.

The Saudi kingdom has seen some important protests in the eastern province by the Shia minority which is very much oppressed. These struggles have been repressed violently and the Saudi monarchy, when the uprising spread to Egypt, tried to buy the kingdom's population by increasing benefits and wages. The Saudi kingdom is definitely not immune to the social unrest that is developing regionally. We should not forget the 1979 uprising in Mecca, and the eastern province has witnessed recurring protests over the years. There will be a social and political explosion at some point in the Saudi kingdom like elsewhere because of the social situation and the fact that the people there, at least major sections of them, are fed-up with the backward and repressive regime – I was about to say “medieval”, but the term is not appropriate, as medieval Arabia was certainly more liberal than the kingdom today. This cannot last eternally and will come to an end. The few reforms that the present king is trying to implement in the hope that they would contribute to defusing the tensions are so limited that they may actually accelerate the crisis instead of defusing it.

The Saudi kingdom is definitely not immune to the social unrest that is developing regionally.

THERE SEEMS TO BE A FORM OF HARAM (NOT ACCEPTABLE) AND HALAL (ACCEPTABLE) UPRISINGS IN THE REGION, CERTAINLY IN THE EYES OF THE GULF COOPERATION COUNCIL (GCC) COUNTRIES (SAUDI ARABIA, KUWAIT, BAHRAIN, OMAN, QATAR AND THE UAE) AS WELL AS THE UNITED STATES. THE UPRISING IN BAHRAIN FOR INSTANCE IS HARAM, BUT THOSE IN LIBYA AND SYRIA ARE SEEN AS HALAL. SAUDI ARABIA AS WELL AS QATAR ARE PLAYING A MAJOR ROLE AS BOTH PRO- AND COUNTER-REVOLUTIONARIES.

For the GCC the issue is clear. Everything that has been happening is haram for them. The whole turmoil starting from the Tunisian uprising is a nightmare for the GCC ruling families and they would certainly have preferred that nothing had happened at all. Just look at the way the Saudis welcomed the ousted Tunisian president Ben Ali in the kingdom, and the way they reacted to what happened in Egypt, not shying away from proclaiming their sympathies for former president Hosni Mubarak. You cannot expect them not to react wildly to what is happening in the GCC itself, in Bahrain, with a monarchy threatened by a mass movement. The sectarian dimension of what is happening in Bahrain is particularly threatening to the Saudis, the Shia being an oppressed majority in Bahrain and an oppressed minority in the Saudi kingdom.

The attitude the Saudis have been showing to Libya is related to the fact that it is the only case where one can believe that they were truly happy of getting rid of an Arab leader, as they have always seen Qaddafi as a trouble-maker. So, support to the Libyan rebellion was a cheap way for the GCC and for the Arab League to pretend to be on the side of the people's movement. As for Syria, the Saudi monarchy is a lot more hesitant. With the deepening of the movement they are trying their best to give it a sectarian angle, of Sunnis rebelling against the minority Alawite government, an ally of Iran, and the sworn enemy of the monarchies. At the same time, they are very worried about what could emerge from this turmoil.

WHAT DO YOU THINK THE APPOINTMENT OF NAYEF BIN ABDUL AZIZ AS THE NEW CROWN PRINCE OF SAUDI ARABIA WILL HAVE ON THE REGION POLITICALLY?

The Saudi kingdom has such an ossified structure and is so anachronistic that one cannot see it surviving except by terrorizing its own population. A combination of a very brutal repressive rule and the intensive use of religion as a legitimizing ideology in a most obscurantist manner: a use of religion as a way of keeping people ignorant of the key requirements of modern life, and this at a time when people are very much exposed to global culture all over the region via new communication technologies. This situation is not sustainable in the long term.

CERTAINLY. I WAS SURPRISED FOR INSTANCE TO LEARN THAT SAUDI ARABIA IS CONSIDERED NUMBER ONE WORLDWIDE FOR YOUTUBE UPLOADS PER CAPITA.

Why are you surprised? This is a country where there are no cinemas. This is also why satellite TV is exceedingly popular there, as it opened a window on the world a country that was until then secluded. They tried to prohibit satellite dishes in the beginning but couldn't. It is part of the hypocrisy of the regime to stop the general population from getting what the elite allows itself – even when it comes to alcoholic drinks. We know from people working there that the elite organize parties where you can get the whole range of the most expensive alcoholic drinks. It is deeply hypocritical. This unbearable atmosphere explains why people seek a breathing space through the Internet.

QATAR HAS REALLY SHOWN ITS HAND INTERNATIONALLY THIS YEAR, PARTICULARLY IN ITS INVOLVEMENT IN LIBYA. WHAT DO YOU THINK DOHA IS ANGLING FOR?

This is not new. Qatar has been playing this maverick role among the Gulf monarchies for many years. Qatar in its short history (only independent since 1971) has had strained relations with its big Saudi neighbor. After 1990-91, when there was a divorce between the Saudi kingdom and the Muslim Brotherhood (MB) due to their opposition to the U.S. military intervention in Iraq, Qatar offered its sponsorship to the MB. Later with Al-Jazeera TV (launched in 1996), they developed an important political tool which gave them a much bigger political influence than such a tiny emirate would normally command. During those years, they were basically behaving as a portfolio investor hedging their funds and investments by developing good relations with everyone.

This produced an extremely bizarre situation where the MB is anchored there, Al-Jazeera is there, with the MB holding a major influence within Al-Jazeera itself. And then after the U.S. invasion of Iraq in 2003, when Washington moved its command base from

I was about to say “medieval”, but the term is not appropriate, as medieval Arabia was certainly more liberal than the Saudi kingdom today.



Tahrir Square, Cairo, Egypt, November 2011. Source: Revolve.

the Saudi kingdom, Qatar offered to welcome it, and now has the most important U.S. military headquarters in the region. The actual headquarters of the U.S. Central Command (CentCom) – even though the official one is in Florida – is in Qatar where the operating structure is (at Al-Udeid Air Base).

Along with all that, Qatar developed friendly relations with Iran, supporting not only Hamas – normal due to relations with the MB – but also Hizbullah in Lebanon, and establishing economic and political ties with Israel (bilateral trade was \$2.9 million in 2010). They really have hedged their investments in the broadest possible manner, from one end of the spectrum to the other. In recent events they were able to use one aspect of this, Al-Jazeera and the MB, and all this is playing a major role in the regional situation.

Qatar appeared to the U.S. suddenly as a major political asset and the emirate is thus contributing to a revision of U.S. policy in the region, which includes a revised attitude shifting toward cooperative relations between Washington and the Muslim Brotherhood. Qatar is instrumental in this regard, and helps the U.S. appear



Anti-government demonstrations outside the state television building, Manama, Bahrain, March 2011. Source: Al-Jazeera.



as standing on the side of the people's movement in the region, while trying to keep it within limits acceptable to U.S. interests. Qatar has been very much involved in this perspective in recent months. Look at their position on the Egyptian events with Al-Jazeera. Qatar has also become more loyal to the GCC, and much more committed to the U.S. than what they let appear previously. Accordingly, its relations with Syria and Iran have cooled down, if not deteriorated in the case of Syria. They are trying through the Arab League to be a deal-broker, although they don't seem to be having much success.

What it takes to get the tip of the iceberg to fall is to break the whole iceberg. In other words, it takes breaking the core armed forces of the regime, which means civil war.

STATE-OWNED QATAR AIRWAYS SIGNED A CONTRACT IN NOVEMBER TO FLY DOMESTIC ROUTES IN IRAN DUE TO THE U.S. SANCTIONS ON IRAN AIR, WHICH FURTHER REFLECTS DOHA'S 'BE-IN-BED' WITH EVERYONE POSITION.

Interesting. Iran does not want to get isolated in the region on a sectarian basis. Look at Syria and Iran. The Iranians have not fully endorsed what the Assad regime is doing as Tehran has sent various signals of discontent about the way the Syrian regime is handling the situation. The backdrop is the ideological struggle between Iran and the Saudi kingdom: the Saudis try to ostracize Iran as Shia, while Iran tries to outbid the Saudis as pan-Islamic.

HOW DO YOU READ THE SITUATION IN SYRIA?

I have been saying from the start of the Syrian protest movement that the regime there has some common features with Libya. You cannot have a Tunisian or Egyptian scenario with the Assad family and other regime's barons leaving the scene, while the state structure remains without any change. That is why the term "revolution" is overstated for Tunisia and Egypt as the situation in the two countries has only moved beyond stage one of a protracted revolutionary process. Change has been rather limited, especially in Egypt with the military holding power.

In Syria, as was the case in Libya, the whole state structure is organically linked with the ruling family; it has no legitimacy of its own. So in such countries the movement cannot remove just the tip of the iceberg. What it takes to get the tip of the iceberg to fall is to break the whole iceberg. In other words, it takes breaking the core armed forces of the regime, which means civil war.



The backdrop is the ideological struggle between Iran and the Saudi kingdom: the Saudis try to ostracize Iran as Shia, while Iran tries to outbid the Saudis as pan-Islamic.

WHAT DO YOU MAKE OF THE SABER-RATTLING BY THE U.S., BRITAIN AND ISRAEL OVER A POTENTIAL CONFLICT WITH IRAN?

I do not see much saber-rattling. The U.S. is in no position to threaten anyone. They are leaving Iraq, the Obama administration is quite weak internally and in Afghanistan they are facing a real quagmire. Washington has lost a lot of credibility in the region, and this started with the disaster for the U.S. in Iraq, which emboldened Iran and is why President Mahmoud Ahmadinejad could afford to be so provocative, as he does not fear the U.S. Iran is not intimidated by Washington.

Those who have a greater incentive to intervene are the Israelis, but they cannot do it without a green light from Washington, and the U.S. is reluctant to give them that; even the Bush administration did not grant that to Israel. Washington knows that an Israeli assault on Iran would ignite the whole situation in the region. That is also why direct foreign intervention in Syria is seen as extremely risky. The Syrian regime seems confident that they will not be facing anything like the NATO airstrikes in Libya. Not only because Damascus has more military means than Libya, but also because Qaddafi was isolated whereas Syria is part of a regional alliance, and foreign intervention against its regime would send

In Libya, foreign intervention compensated the vast military imbalance between the uprising and the regime. In Syria, the difference is that in addition to the private guard of the regime – the elite security forces – there is a conscript army, which is witnessing an increasing wave of splits. If dissidence carries on, it might lead to a fully fledged civil war with the possibility of defeating the regime. Otherwise I cannot see the regime's barons leaving the scene. A compromise that would not stop them from still holding the reins of power can hardly be accepted by the protest movement.

HOW WILL LEBANON BE AFFECTED IF THE SITUATION IN SYRIA DETERIORATES FURTHER?

I think it will basically depend on the attitude of forces in Lebanon itself, starting with Hizbullah. If they prove to be wise enough to keep out of the Syrian cauldron in case Syria descends into civil war, Lebanon might be able to weather the storm. But it would be affected economically, and it is already the case. However, if each side in Lebanon starts joining the fray in Syria, then the likelihood of the conflict spreading to Lebanon itself in the form of a Sunni-Shia clash would be very high. But it should not be taken for granted that if Syria descends into civil war Lebanon will follow. There is a real responsibility incumbent on the Lebanese political forces.



(Top) Al-Azhar Mosque, Cairo, Egypt, November 2011. Source: Revolve.

(Bottom) Tahrir Square, Cairo, Egypt, November 2011. Source: Revolve.

a big shockwave through the whole region. In this sense, what President Bashar Assad said in an October speech was not just empty threats. They know this well in Washington, and that is why they are keeping a relatively low profile. The impact of U.S. and European sanctions on Syria have is limited because of the Iranian factor. With allies in Iran and Lebanon, it is impossible to fully isolate the Syrian regime.

AND IRAQ TOO, SYRIA'S TOP EXPORT PARTNER AND SECOND MOST IMPORTANT TRADE PARTNER.

Absolutely. Iraq will not sever its links with Syria. Turkey is also a major player in the Syrian situation. It cannot intervene in Syria militarily without Iran retaliating, creating a more complicated situation regionally. That is why, most likely, they will try to act as a deal-broker between Assad and the opposition – joining the Arab League in its effort to sponsor some kind of compromise that does not affect the continuity of the regime itself but opens a space for the opposition in the country, although I do not see how this would be sustainable. A third scenario is a coup from within the elite forces that would get rid of the Assad family and try to organize some kind of smooth transition by members of the elite apparatus who have a long-term perspective and understand that it cannot go on like this forever. But this is wishful thinking and there are no indications that this is brewing in Syria.

WHAT IMPACT DO YOU THINK THE UPRISINGS WILL HAVE ON ISRAEL? COULD THE EGYPTIANS FOR INSTANCE ANNUL THE 1979 CAMP DAVID PEACE TREATY?

As long as the military is in charge in Egypt — and I cannot see how they would be pushed aside peacefully — the answer is simply no. This would involve very heavy consequences: increased costs due to potential confrontations with Israel and with Washington cutting off aid – the U.S. is a major funder of the Egyptian military forces. Even if the Muslim Brotherhood achieves

Qatar appeared to the U.S. suddenly as a major political asset and the emirate is thus contributing to a revision of U.S. policy in the region.

The overall regional perspective for Israel is much more worrying than it was before 2011.

an electoral victory, they will have to compromise with the army. At best, this would be like the Islamic party in Turkey in 1996-97 when Prime Minister Necmettin Erbakan won the 1995 elections. They were in government but not really in power, which remained in the hands of the military. The situation in Egypt is more explosive, much tenser than it was in Turkey. Unless there is a new upsurge in the mass movement and a breakdown of the military structure that has been ruling for decades, I cannot see how such a radical change in foreign policy could happen. Egypt can make gestures that they are standing up to Israel; even under Mubarak they made gestures. We've seen with the episode of the Israeli embassy in Cairo, which was attacked by protesters in September 2011, how the military behaved: very well in the eyes of the U.S., with the army offering all kinds of excuses despite the provocative attitudes of Israeli Prime Minister Benjamin Netanyahu's government and the shootings in the Sinai Peninsula last August when the Israelis killed five Egyptian policemen.

The overall regional perspective for Israel is much more worrying than it was before 2011: Egypt is destabilized and so is Syria. For Israel, the Syrian regime was a very safe neighbor. There is turmoil everywhere, and therefore the kind of Israeli prospect you had in the past — like at the time of the Egyptian-Israeli peace treaty when Israeli President Shimon Peres had big dreams of making the desert bloom and marrying Israeli technology with Arab capital and labor has vanished.

The present far-right Israeli government does not give a damn about the Arab relationship. They only believe in their own power. The message they keep repeating to Washington is: We are your only stable ally in the region. All the others are unreliable. Therefore do not pressure us to accommodate our Arab neighbors. If it comes to military confrontation in the region, with Iran for instance, Israel is there as a weapon of last resort for U.S. and Saudi interests.

21ST CENTURY CONFLICTS

Remnants of War

Writer: Bostjan Videmsek Photographer: Jure Erzen



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THE NILE

Shifting Balance of Powers

Writers: Francesca de Châtel & Terje Oestigaard

Photographer: Terje Oestigaard

Francesca de Châtel is Water Editor at *Revolve Magazine*. Terje Oestigaard is a researcher at the Nordic Africa Institute in Uppsala, Sweden. He works on different Nile issues and has conducted extensive fieldwork in Egypt, Ethiopia and Tanzania. He has written, edited and co-edited more than 20 books and is currently researching rainfed agriculture in Tanzania.

Despite closer cooperation between the Nile Basin countries, tensions over water sharing are likely to increase as population growth, climate change and agricultural development in upstream countries place growing pressure on water resources.





In the long-running “water wars” debate the Nile has been quoted often as an example of a river basin where armed conflict is sure to erupt. The threats and counter-threats issued by Nile Basin states are presented as proof that violent confrontation is looming – from former UN Secretary General Boutros Boutros Ghali’s repeated declaration that “the next war in the Middle East will be fought over water” to World Bank Vice President Ismail Serageldin’s statement in 1995 that the wars of the 21st century would be about water.

Quick to dispel what they claim to be baseless rumors and media hype, officials from both upstream and downstream countries today vehemently deny that such tensions exist in the Nile Basin. “Media reports about tensions in the Nile Basin are not accurate,” Alemayehu Tegen, Ethiopia’s Minister of Water and Energy, told *Revolve*. “Normally there is no tension between us and we do not accept media reports that claim otherwise.” Tegen and his counterparts from Sudan and South Sudan emphasized the great sense of goodwill between the 11 Nile Basin countries – Burundi, the Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda.

Even Egypt, which just last year issued defiant statements regarding future water development schemes in upstream countries, has adopted a conciliatory tone in recent months. “It is in Egypt’s best interest to arrive at an amicable solution,” Osama El-Magdoub, the Egyptian Ambassador to Sweden, told *Revolve*. “What we are asking for is not something rigid or unjust to other states. All we are saying is that it is important for upstream countries not to initiate projects that will affect the amount of water arriving in downstream countries.”

It is a far cry from the belligerent statements issued less than two years ago by Egypt’s then-Minister of Water and Irrigation, Mohammed Nasreddin Allam, who said in May 2010 that Egypt’s share of the Nile’s water was “a historic right” and a matter of national security to Egypt. “We won’t under any circumstances allow our water rights to be jeopardized,” he said, adding that Egypt reserved the right “to take whatever course it sees fit to safeguard its share”.

But while all parties today talk about the “win-win approach” and hasten to emphasize the importance of not harming their neighbors, many are at the same time forging ahead with ambitious irrigation and hydro-power projects. As climate change and population growth place further pressure on water resources in the basin, this inevitably raises the question of whether the 11 Nile Basin countries will succeed in sharing the Nile equitably. And can all parties really be winners?



The Blue Nile flowing from Lake Tana in the background, Ethiopia, September 2009.

Upstream vs. Downstream Rights

With a length of 6,671 kilometers, the Nile is generally considered to be the longest river in the world, draining an area of approximately 3.5 million square kilometers, equivalent to about a tenth of the African continent.

The river's two main tributaries, the White Nile and the Blue Nile, meet in the Sudanese capital Khartoum to form the Nile proper. The river has an annual average flow of 84 billion cubic meters, as measured at Aswan near the Egyptian-Sudanese border. The Blue Nile, the Atbara and the Sobat, which all rise in Ethiopia, contribute approximately 85 percent of the water that reaches Aswan. The White Nile, which draws its water from Lake Victoria and its tributaries, contributes the remaining 15 percent of the Nile waters.

As in the Euphrates-Tigris Basin, the water-sharing controversy along the Nile opposes upstream countries – Burundi, Ethiopia, Kenya, Rwanda, Tanzania and Uganda – and downstream Egypt and Sudan.

However, unlike many other river basins, where downstream countries are usually seen as the weaker actors, Egypt – and to a lesser extent Sudan – have traditionally been seen as the “Nile powers”.

Together, these two countries currently lay claim to the total 84 billion cubic meters of Nile water – 18.5 billion cubic meters for Sudan and 55.5 billion cubic meters for Egypt – under a bilateral water-sharing agreement that was signed in 1959. This agreement replaced a 1929 treaty between Egypt and Great Britain, which was act-

ing on behalf of its East African colonies, present-day Uganda, Kenya, Tanzania and Sudan.

Over the years, upstream countries have voiced increasing discontent with this arrangement, which was made before many of them had gained independence and which denies them what they see as their rightful share of the Nile waters.

“The 1929 and 1959 agreements are not binding to the upstream countries,” said Yacob Arsano, an associate professor of political science at Ethiopia's Addis Ababa University. “The upstream countries were not signatory to these agreements and their interests were not considered in either of the agreements, which entirely ignore their rights.”

However, downstream Egypt, which draws 97 percent of its water from the Nile, insists that it has “historical rights” and fears that upstream developments will reduce its current share. It argues that the Nile is Egypt's lifeblood, while upstream countries can rely on supplies from other rivers and rainfall.

The upstream countries counter that the previous agreements, which give Egypt the right to “inspect and investigate” the whole length of the Nile, form an obstacle to their own development. More specifically, these agreements prevent upstream countries from developing hydropower dams that would help them address the severe electricity shortages they face and implement irrigation projects.

A New Agreement

In a bid to dampen tensions and build trust among the Nile Basin countries, the World Bank and the United Nations established in 1999 the Nile Basin Initiative (NBI), a 10-year project aimed at encouraging sustainable development in the Nile Basin countries.

One of the initiative's key objectives was to develop a new water-sharing agreement that would include the upstream countries. After years of negotiations, the Nile Basin Cooperative Framework Agreement (CFA) was issued in May 2010. How-

ever, instead of uniting the parties, the new agreement once again sowed discord in the basin, with Egypt and Sudan leaving the negotiating table in 2010.

Unlike previous agreements, the CFA focuses on water-sharing principles and does not outline specific water allocations per country. Yet Egypt and Sudan perceived the wording of the agreement – and more specifically the omission of any mention of their current allocations – as a threat to their water security.



The life-giving Nile and the barren desert, Egypt, May 2007.

However, this did not stop Ethiopia, Tanzania, Uganda, Rwanda and Kenya from signing the agreement in 2010, a move which marks a turning point in the history of the Nile Basin. “The importance of the CFA lies in the fact that these [upstream] countries acted alone, disregarding the opposition from the traditional powers on the Nile, Egypt and the Sudan,” said Terje Tvedt, an historian and professor of geography at the University of Bergen in Norway. “Compared to many different initiatives during the 20th century, the CFA represents an entirely new direction.”

Two controversies surround the CFA. One centers on Article 14b, which states that the Nile Basin States agree “not to significantly affect the water security of any other Nile Basin State”. Egypt and Sudan have argued that this compromises their share of the Nile and instead proposed the phrase “not to adversely affect the water security and current uses and rights of any other Nile Basin State” – a wording that would guarantee their current allocations.

Over the years, upstream countries have voiced increasing discontent with this arrangement, which was made before many of them had gained independence and which denies them what they see as their rightful share of the Nile waters.

However, instead of uniting the parties, the new agreement once again sowed discord in the basin, with Egypt and Sudan leaving the negotiating table in 2010.

“There is a point of difference on Article 14b of the agreement,” Kamal Ali Mohamed, Sudan’s Minister of Irrigation and Water Resources, told *Revolve* in August 2011. “[The upstream countries] took Article 14b out of the legal framework and they are explicitly saying ‘we don’t recognize your existing rights’. We are trying to find a compromise to this.”

In addition, Egypt and Sudan want decisions concerning the Nile Basin to be made by consensus and not majority vote, which would make it possible for a single country to veto any decision. In practice, this would give Egypt or Sudan the possibility to block any upstream projects they perceive as threatening.

Egyptian Worries Over Ethiopian Mega-Projects

Regardless of Egyptian and Sudanese objections, the upstream countries are moving ahead. After the first five countries signed the CFA in 2010, Burundi joined in March 2011, providing the required two-third majority that will make the agreement valid after ratification. The next step will be the creation of a Nile Basin Commission that will oversee water development projects throughout the basin.

Observers say that it is a matter of time before the downstream countries sign the CFA as well. Ana Cascao, a program manager at the Stockholm International Water Institute (SIWI), argues that Egypt is unlikely to remain on the sidelines for long. “Egypt

would never stay out [of the commission],” she said. “It has an interest in cooperating with all the countries in the basin.” Far from harming Egypt’s water security and long-term interests, she believes large parts of the CFA actually protect Egypt’s position. “Of course Egypt is afraid that the CFA and the subsequent creation of a Nile Basin Commission will lead to the implementation of new projects. But I think this is blindness. New projects are already being implemented – even in these 10 years of cooperation.”

In this context, Ethiopia is the one to watch. The “water tower of Africa”, which provides approximately 85 percent of the water that arrives at the Sudanese-Egyptian border,



The Blue Nile flooding the outskirts of Khartoum, Sudan, August 2007.

has to date been incapable of exploiting its own water resources. While the country has an annual water availability of an estimated 123 billion cubic meters – the equivalent of one and a half times of the annual flow of the Nile measured at Aswan – it only makes use of 3 percent of this water, with the bulk flowing across its borders.

Failure to develop the country's abundant water resources has had a knock-on effect on food security: Ethiopia currently only irrigates 5 percent of its irrigable land and its population is frequently exposed to food shortages and famine. In addition, the country, which remains one of the poorest in the world, has a high population growth rate and faces severe problems of environmental degradation.

In a bid to lift itself out of a decades-long vicious cycle, the Ethiopian government has launched an ambitious development plan that will use water and hydropower as the pillars for economic growth. A series of dams and irrigation projects throughout the country are set to increase electricity supply and reduce Ethiopia's chronic dependence on food aid. The centerpiece of this development scheme is the \$4.5-billion Grand Renaissance Dam on the Blue Nile, which was announced in March 2011 and which is set to be the tenth largest dam in the world.

The announcement of such a large-scale project would previously have prompted an aggressive response from Egypt. However, recent political events in the downstream country have noticeably lightened the mood in the basin. The fall of Hosni Mubarak was

rapidly followed by diplomatic overtures, with Egyptian governmental and non-governmental delegations visiting several upstream countries in a bid to "turn a new page in Egypt's relationship with the Nile Basin countries", according to former Egyptian Prime Minister Essam al-Sharaf. Most significantly perhaps, the frosty relationship between Egypt and Ethiopia has started to thaw, with the announcement in September 2011 of the creation of a trilateral team of experts from Egypt, Ethiopia and Sudan to assess the impact of the Grand Renaissance Dam on the Nile flow.

"We all agree that the Nile is a bridge, it is not a barrier," Ethiopian Prime Minister Meles Zenawi said at a press conference in Cairo following the bilateral meeting in September. "The future is a new relationship between Ethiopia and Egypt based on a win-win strategy. The past is a past based on a zero-sum game. That is gone. There is no going back."

Balancing demand and supply

Beyond all the handshaking and the general feel-good atmosphere in the basin, the question still remains: will there be enough water to go around in the future?

More than a third of the African population lives in the Nile Basin countries, which have a combined population of 370 million inhabitants, with 200 million living in the basin. According to the UN, this figure is set

In a startling about-turn, Sharaf went so far as to describe the planned Grand Renaissance Dam as a "source of benefit". "We can make the issue of the Grand Renaissance Dam something useful," he said. "This dam, in conjunction with the other dams, can be a path for development and construction between Ethiopia, Sudan and Egypt."

The rhetoric surrounding the CFA has also been tempered. According to Ambassador El-Magdoub: "We believe that we should find ways for upstream countries to benefit from the water and implement development projects without affecting the amount of water received by the other countries. Do we stick to 14b to the letter? I don't think it's necessary. We are not saying 'give us water and have scarcity'. That's not the approach. The approach is 'let's be fair'."

to nearly double by 2030 with up to 700 million people living in the Nile Basin countries and 400 million in the basin itself.

Ethiopia has one of the fastest-growing populations in the basin. According to UN figures, the country's population is set to rise from approximately 82 million inhabitants today to 145 million in 2050. In Egypt, which already suffers from water scarcity,



Tis Abay, the Blue Nile Falls, in Ethiopia, September 2009.

the population is expected to grow from the current 81 million inhabitants to 123 million in 2050. This growth, coupled with increased demand as living standards improve, will mean that per person water shares will be drastically reduced, not only in Egypt but throughout the Nile Basin.

The added threat of climate change, which is likely to lead to higher temperatures, more frequent droughts and reduced rainfall in certain parts of the basin, will further impact the flow of the Nile.

Such prognostics may appear to spell disaster — and presage armed conflict — in a region that is already affected by poverty and underdevelopment. However, water experts in the region as well as outside observers point to the enormous amount of water that is wasted throughout

the basin — from evaporation in dam reservoirs, lakes and marshes, to inefficient water management and wasteful agricultural practices. For example, a yearly average of 10 billion cubic meters of water evaporates from the reservoir of Egypt's High Aswan Dam, known as Lake Nasser.

"Some estimates show that the total amount of water to be utilized in upstream countries is less than what is wasted in evaporation from Lake Nasser, in rice paddies and through flood irrigation in Egypt alone," political scientist Yacob Arsano said. "Mitigating wastage and mismanagement of water in all basin countries would provide the best opportunity to save water."

Egypt also stands to gain from a rationalization of domestic water use. Of the 55.5 billion cubic meters of Nile water that is allo-

cated to the country every year, around 86 percent is used in agriculture, where inefficient traditional irrigation methods, such as flooding, are practiced on 88 percent of the irrigated land. And while Egypt is classified as a "highly water-stressed" country, it continues to cultivate and export water thirsty crops. In 2010, the country exported between 600,000 and 800,000 tons of rice and produced 131,500 tons cotton.

According to Ambassador El-Magdoub, the Egyptian government is aware of this inefficient water use and working hard to reassess crop choices, modernize irrigation methods and improve urban networks. In addition, Egypt is seeking to tap into alternative sources of water through desalination and use of treated wastewater, he said.

Water experts in the region, as well as outside observers, point to the enormous amount of water that is wasted throughout the basin — from evaporation in dam reservoirs, lakes and marshes, to inefficient water management and wasteful agricultural practices.

Egyptian water experts also argue that huge gains are to be made in upstream countries, not just through rationalization of agricultural or urban water use, but also by capturing rain water and water that is now lost to evaporation along the course of the Nile.

Egyptian scientists claim that the Nile Basin receives a total of 1,660 billion cubic meters of rain a year. In that context, they argue Egypt's use of 55.5 billion cubic meters of this water is negligible, particularly given that the Nile is its only source of water, whereas upstream countries can rely on other rivers, groundwater and rain.

"There is physically speaking more than enough water for everybody in the Nile Basin," historian Terje Tvedt said. "But the question is: how interesting is this observation?"

Tvedt argues that while overall water availability in the basin may be high on paper, it is not a given that all of this water can and will be exploited.

"Hydrological experts from Egypt and Sudan claim that between 20 and 30 billion cubic meters of water is lost annually in the swamps of South Sudan," he said. "Others will argue that this swamp ecology should

Increasing Supply

not be tampered with. If this argument wins through, then the 30 billion will be available for the rest of the basin on paper only.”

The exploitation of the Sudd marshes in the newly independent state of South Sudan remains a highly sensitive topic. Scientists estimate that half of the water that flows into the 135,000-square-kilometer area is lost to evaporation, and say that losses could be greatly reduced by building a canal to channel the water more directly upstream.

Originally conceived by the British in colonial times, the Jonglei Canal Project was partly implemented by Egypt and Sudan in late 1970s with the aim of recovering 4.8 billion cubic meters per year.

Through the creation of several other such diversion canals at various points in the Sudd, the Egyptians hoped to recover an annual total of 18.5 billion cubic meters from the White Nile. However, work on the first project was interrupted in 1984 when the violent civil war erupted between the local African tribes and the Sudanese army.

Egypt and Sudan remain strong advocates of the Jonglei Canal, which would increase water flow to the downstream countries. But the project remains taboo among officials

from the newly independent South Sudan, who consider it one of the causes of the conflict that ravished their country in the 1980s and 1990s. The large-scale diversion of water from the Sudd would have far-reaching effects on the local environment and lifestyles.

Moreover, increasing the flow of the Nile is certainly not a priority for South Sudan. The world's youngest state is today also one of the least developed. According to Emmanuel Parmenas of the Ministry of Water Resources and Irrigation of South Sudan, the country faces huge challenges in the domain of infrastructure, clean water supply, sanitation, security, health services and education. “Our main challenge at the moment as a new republic in Africa is that we lack clean and safe water supply infrastructure, both in urban and rural settings,” he said. “We were overwhelmed by the return of people to South Sudan. Over 80 percent of

our population is rural and supplying them with water is a great challenge.”

Parmenas added, however, that expanding irrigated agriculture is one of the main pillars of South Sudan's long-term development plans. Observers argue that while South Sudan is unlikely to lay claim to a share of the Nile in the near future, it could nevertheless play a significant role in the basin – particularly for downstream countries – as it holds the key to increasing the flow of the Nile.

“Some people argue that South Sudan is quite unimportant, since the White Nile only contributes 10 to 15 percent of the total water flow of the Nile at Aswan,” Tvedt said. “But this argument overlooks the important fact that according to some experts the flow of the Nile can be increased by up to 30 percent in South Sudan.”

Betting water security against food security on the increasingly volatile and risky international market hardly seems a valid alternative to the development of sound regional riparian cooperation.



Competing Interests

Developments in Ethiopia and Sudan are likely to have a greater impact on the flow of the Nile in Egypt. The Ethiopian government has outlined ambitious plans for the development of a series of hydroelectric dams and irrigation projects, which will not only boost the country's electricity supply, but also improve food security.

According to historian Terje Tvedt, the impact of these projects on the Nile flow remains unclear. "It depends on the purpose of the dams," he said. "Ethiopia's Tekeze dam has helped even out the flow of the Atbara River, thus improving conditions for irrigation and agriculture in eastern parts of Sudan. If Sudan uses more of its share of the Nile because of this, less water will flow to Egypt."

The Ethiopian government estimates that the country could generate a total of 45,000MW of hydropower. However, in addition, it has outlined plans to massively develop irrigated agriculture in a bid to improve the country's food security. According to one Ethiopian official, the country

aims to expand irrigated agriculture from the current 250,000 hectares to more than 2.5 million hectares by 2015. Despite insistence from the Ethiopian government that these projects will not affect the flow of the Nile, it is hard to see how a ten-fold expansion of irrigated land would not influence the amount of water flowing downstream.

However, SIWI's Ana Cascao questions to what extent Ethiopia will be able to implement its plans. "[Ethiopia] doesn't have the capacity to use this water, except if they conceive of a mega-project to transport water over huge distances, but they would not be able to finance this," she said.

Cascao believes agricultural development in Sudan could have a greater impact on downstream flow. Following the secession of South Sudan, the north has lost significant oil resources, making agriculture an important source of revenue for Sudan in the future. Moreover, Sudan has extremely fertile soils, particularly in the Gezira Triangle between Khartoum, Kassala and Kosti where the British developed irrigation networks in the early 20th century. "The potential is enormous," Cascao said. "We're talking about extremely fertile, flat land and an irrigation scheme that already exists, even if it needs upgrading."

Slowed by civil war and political strife, Sudan has never used its full share of Nile water allocated in the 1959 agreement. Of the 18,5 billion cubic meters of water, only 12,5 to 14,5 billion is used in Sudan while the remainder flows downstream to Egypt. A series of development projects throughout the country aims to maximize on water resources in order to develop Sudan's agricultural sector and hydroelectric potential. According to the Sudanese government, the country will require 32 billion cubic meters of water by 2025 for food security and other essential uses. The daunting race towards food security drives these massive development plans that will no doubt have a ripple effect downstream.

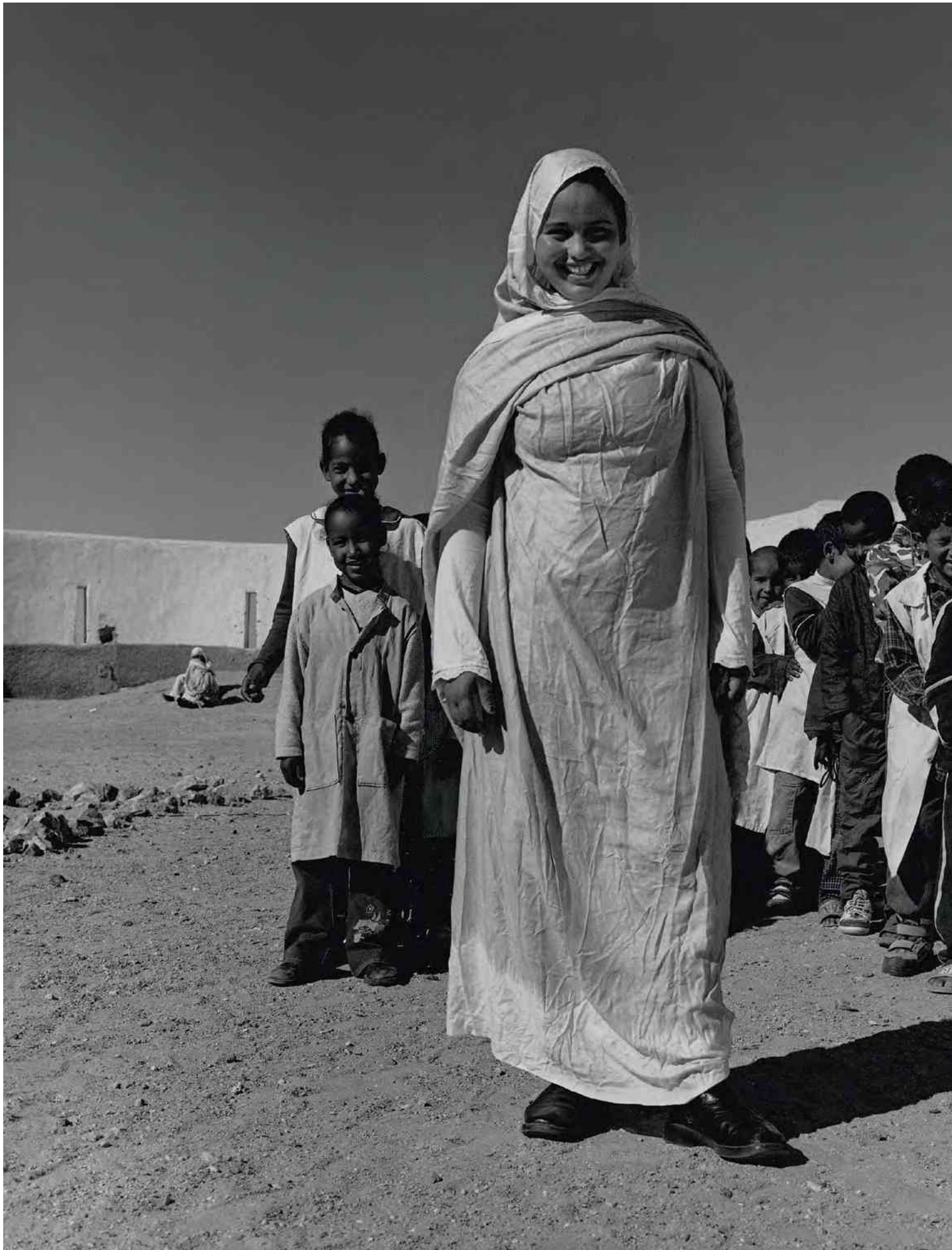
The question remains: will there be enough water for all these schemes? Some propose the trade of water, as an international commodity or even currency, as a way to bypass investment in hydropower and irrigation projects. But betting water security against food security on the increasingly volatile and risky international market hardly seems a valid alternative to the development of sound regional riparian cooperation.

The verdict is out. Water security in the Nile Basin can no longer be divorced from increasingly urgent issues of food security and energy supply. The future of urbanization, climate change, increased drought, and decreased rainfall do not simplify the task at hand. It is exactly the shared nature of the predicament in the Nile Basin that should push its communities to work together in finding a sound and sustainable regional solution.

The development of Nile Basin countries will not only shape the north-eastern corner of Africa; it will have implications beyond the continent. The shared challenges that lie ahead have been part of the Common Framework Agreement negotiations and efforts to achieve more equitable utilization of Nile waters in the decades to come. The future, as always, remains unpredictable and uncertain. Tensions, conflict, geopolitical shifts and cooperation will take place at different places and times. But the steps taken in the Nile Basin are to be watched carefully, as examples for other shared river basins facing growing stress on food and water security.

Stranded ferry on the Nile in Sudan, August 2007.





WESTERN SAHARA

KEEPING THE STATUS QUO ALIVE

Writer: Eduardo Trillo de Martín-Pinillos

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UN resolution 1979 (2011) on the Western Sahara does not bring independence any closer for the Saharawi people; it does not even improve human rights; it merely endorses the Moroccan monarchy.

(Left) Fatima Hamdi Mohammed Lamim, the February 27 refugee camp, Tindouf, Algeria.
(Below) Saharawi neighborhood, Layounne, Occupied Zone, Western Sahara.





Saharawi Graveyard, Layounne, Occupied Zone, Western Sahara.



Phosphate mine, Occupied Zone, Western Sahara.

Resolution 1979 (2011) on the Western Sahara

Since December 2010, the so-called international community watches the popular protests taking place in the Arab world. In the midst of a global economic crisis, these revolts – hitherto unimaginable and unimaginable – are the result of the desperation of societies in the face of entrenched corruption and the authoritarianism of regimes founded on oligarchies that seized power during their independence. Nevertheless, the revolutionary outbreak owes, without doubt, its rapid local and regional propagation to the expansion of communication amongst the youth (via Internet networks), which breaks the iron silence of information upon which such regimes were founded. The first achievement of these protests was the deposition of Ben Ali in Tunis. The trigger of his demise was the self-immolation of a young man haunted by his own future and the constant arrogance and humiliation of the regime.

However, the first warning signs of this tide of demonstrations took place in early October 2010, several thousand kilo-

meters from the Mediterranean, in the extreme south-western point of the Arab world, in El-Aaiun – the capital of Western Sahara. Prohibited from demonstrating peacefully in the city streets, thousands of Saharawis, dodging Moroccan occupation forces, pitched their tents in Gdeim Izik – the middle of the desert – and protested against their lack of work and housing, and demanding their rights to sovereignty over the natural resources of their territory.

The Moroccan monarchy, overwhelmed by the magnitude of the events and the deterioration of its international image, reacted, making use of what has become a classic formula: first, expulsion of the international press to avoid uncomfortable testimonials, followed by the assault on and destruction of the encampment on November 8, 2010, followed by the detention, and disappearance of opposition leaders without due process. But this time, some members of the Moroccan Security Forces died along with protesters.

The young Saharawis who lived in the zone of Western Sahara that is occupied by the Moroccans – desperate after waiting for a referendum allowing them to choose freely their future for more than 35 years – had lost the fear to die and faced the occupier, brandishing kitchen knives.¹ Meanwhile, in the Algerian refugee camps, the Polisario Front² (the Saharawi Liberation Movement) had to calm its own, also desperate group that threatened to break the ceasefire and intervene on behalf of their brothers.

The Polisario – another oligarchy in power since the foundation of the Movement in 1972 – preferred to offer a new opportunity in the framework of negotiations established by the United Nations. They hoped that their gesture of good faith would be rewarded at the next Security Council resolution which reviews the conflict annually and would include the protection of human rights desired by MINURSO³ – the sole UN peace mission without competencies in human rights.

Recall that Western Sahara is, according to the UN, “a non-autonomous territory,” that is to say, a colonial territory still awaiting decolonization. In October 1975, the International Tribunal in The Hague rejected any and all sovereign rights of Morocco

and Mauritania over the territory.⁴ However, Spain — the administrative legal power — just a few days later, signed a treaty⁵ with Morocco and Mauritania ceding administration and thus abandoning its responsibilities. Those agreements were never endorsed by the General Assembly and thus lack all legal effect at the international level. Confirmed by a UN legal report in 2002,⁶ Morocco and Mauritania became the occupying powers of the Western Sahara in 1976 with the consent of Spain since it was the previous administering power.

The war that ensued between the occupiers and the Polisario Front initially led to the defeat of Mauritania in 1979, which abandoned the territory. The conflict became

a war of attrition in the desert. Morocco managed to hold on to Saharawi cities in order to build a defensive wall protecting nearly 80 percent of the territory — mainly with the help of France (Morocco's former colonial metropolis and trading partner). In 1991, the exhausted parties agreed to commence negotiations to observe the referendum to-be for self-determination. But Morocco challenged the census prepared for this very purpose in 1999 by MINURSO. From this moment on, conversations have continued without any concrete progress towards the achievement of “a just and sustainable, mutually acceptable, political solution,” which would allow for the self-determination of the Saharawi peoples in accordance with the UN Charter.

1. Report from the Moroccan Association for Human Rights, December 24, 2010.
2. Popular Front for the Liberation of Saguía el Hamra y Río de Oro.
3. United Nations Mission for the Referendum in Western Sahara, MINURSO.
4. Advisory Opinion of the International Court of Justice on the Western Sahara, October 16, 1975.
5. “Madrid Agreement,” October 20, 1975.
6. UN Doc. S/2002/161.

Recall that Western Sahara is, according to the UN, “a non-autonomous territory,” that is to say, a colonial territory still awaiting decolonization.

On the road between Layounne and Asmara.





Former Spanish military base, today, MINURSO military base, Layounne, Occupied Zone, Western Sahara.



Deserted Moroccan development on the road between Layounne and Asmara.

Human Rights – On Standby

Paradoxically, this stalemate of the negotiations has run in parallel to the emergence of human rights groups in Western Sahara cities, which denounce the grave human rights violations committed by the Moroccan Occupation Forces. The activities of these organizations have been harshly repressed by Morocco, to the point that in November 2009, the internationally-renowned Saharawi defender of human rights, Aminatu Haidar,⁷ was expelled from the territory. Haidar was able to return only after a long and painful hunger strike and effective pressure from the United States.⁸

Despite the ever-decreasing situation and Moroccan repression, the last resolutions in 2009 and 2010 of the Security Council regarding the territory have ignored the necessity to protect Saharawi human rights. Instead, these resolutions have merely confirmed the importance of progressing in the “human dimensions” of the conflict, as if an analogy exists between the Saharawi conflict and Europe during the Cold War.⁹ Therefore, after the events of the Gdeim Izik protest encampment, the new UN Security Council resolution

regarding Western Sahara was expected with much anticipation.

The new resolution 1979 (2011), like the previous resolutions, was pre-planned by France and Spain, as well as negotiated by the United States, to be adopted finally by the Security Council on April 27, 2011. Its content proves highly disappointing: the resolution does not amplify the MINURSO mandate to the supervision and monitoring of Saharawis’ human rights. The resolution goes so far as to make an unsubstantiated claim to justify a concern for the human rights’ conditions as serious in the zone occupied by Morocco, as in the Algerian refugee camps where the United Nations High Commissioner for Refugees (UNHCR) has an ample presence.

To guarantee the future amelioration of human rights for Saharawis, the Security Council declares that the Resolution and the Security Council will welcome the establishment of a National Council for Human Rights by Morocco, complete with a special chamber dedicated to Western Sahara. This new institution merely

renames the pre-existing and inefficient Advisory Council on Human Rights¹⁰ created in 1990. The Resolution therefore does no more than implicitly recognize the competence of a public Moroccan institution in a territory outside of its sovereignty, subject to a still pending decolonization process sponsored by the UN.

Moreover, the Resolution contains an irrelevant reference to the commitment of Morocco to ensure unconditional access – free of conditions and obstacles – to all the Special Procedures of the UN Advisory Council on Human Rights. This organ is not an objective nor independent institution, but rather it is of a political and inter-governmental nature, having been formed by the representatives of 47 states — including France and Spain — whose governments are characterized by minimal sensitivity to human rights violations of the Saharawis, in addition to other states characterized by indifference towards human rights, such as China, Cuba, or Saudi

Arabia. In this sense, it suffices to recall the Universal Periodic Review, to which Morocco was subject in 2008 by the UN Advisory Council on Human Rights, whose final report¹¹ solely recognized progress without once mentioning the dire situation, which already existed, in the occupied territory of Western Sahara.

7. Human Rights Prize of the Robert F. Kennedy Foundation 2008 – Civil Courage Prize, Train Foundation, 2009.

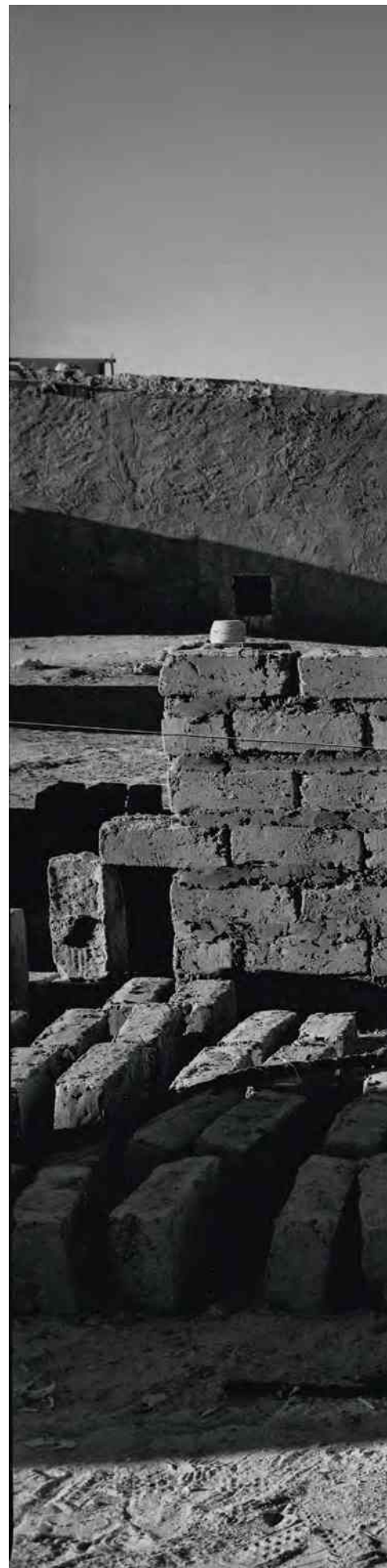
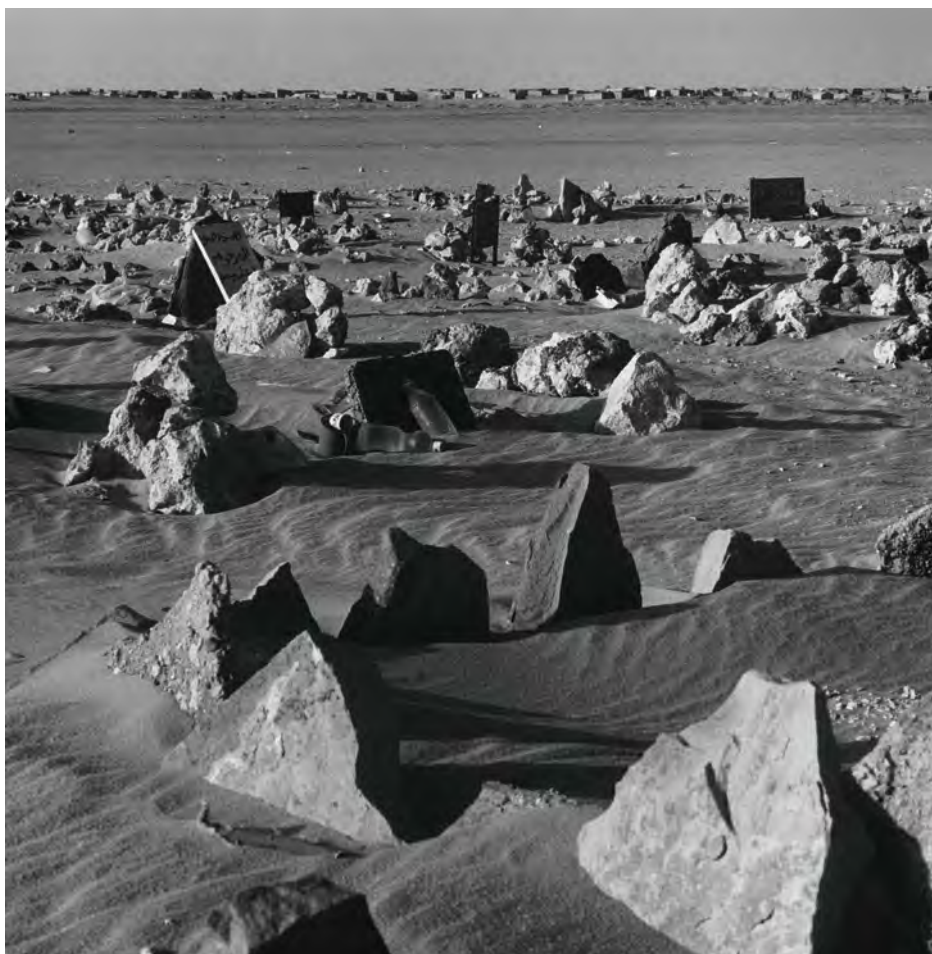
8. Eduardo Soto-Trillo, *Viaje al abandono*, Aguilar, 2011.

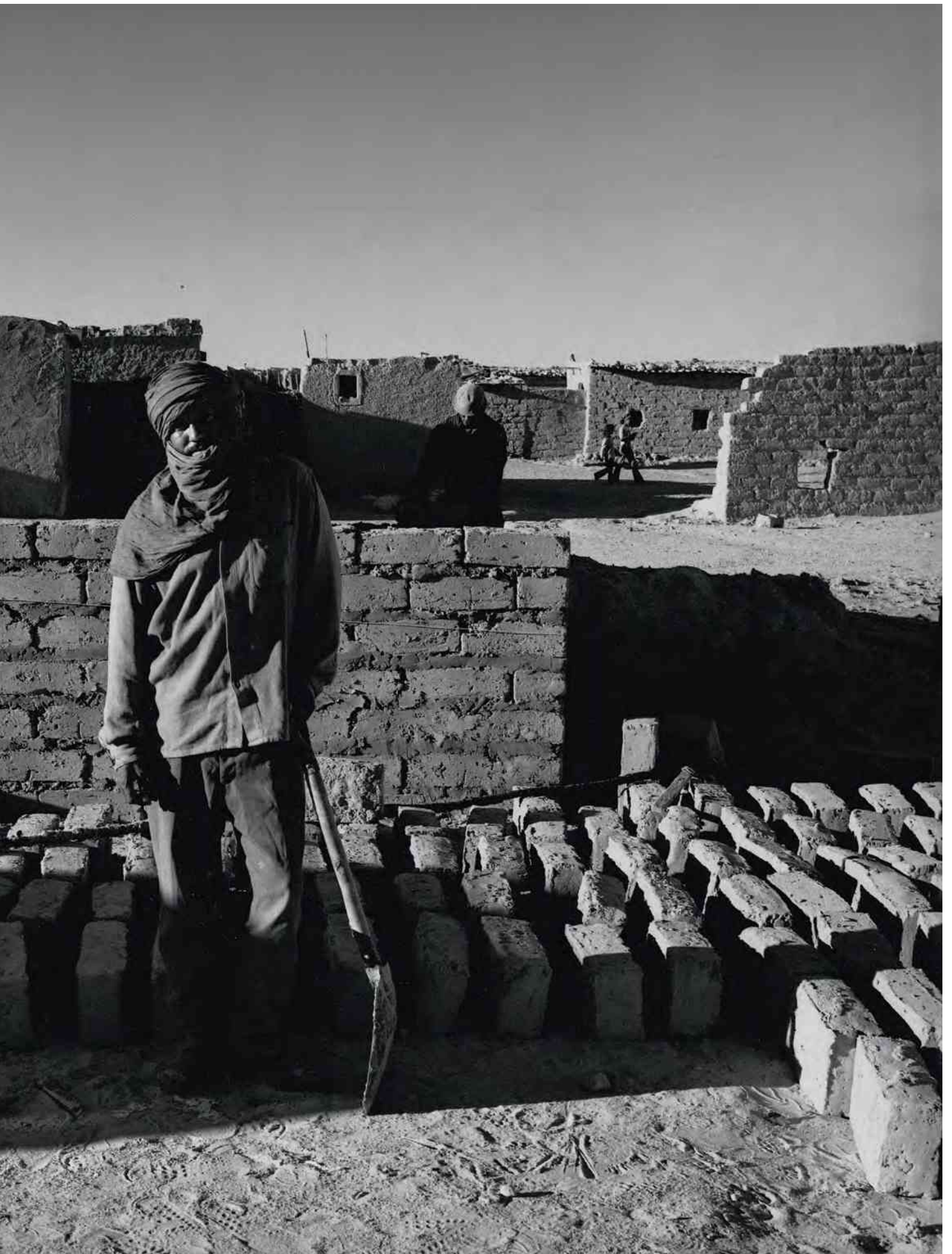
9. The term "human dimension" was first used within the Conference for Security and Cooperation in Europe in Helsinki, 1975, to introduce human rights issues.

10. See Amnesty International annual reports, "Alliance for Dignity and Freedom," Human Rights Watch, and the Moroccan Association for Human Rights.

11. A/HRC/8/22.

Graveyard outside the February 27 refugee camp, Tindouf, Algeria.





Construction worker, February 27 refugee camp, Tindouf, Algeria.

Endorsing the Moroccan Monarchy

The icing on the cake of this Resolution is that – as a solution – it endorses the application of a refugee protection program developed by the UNHCR in coordination with the Polisario Front. This program, led by the United Nations Office of the High Commissioner for Human Rights (OHCHR), includes capacity-building and awareness-raising activities on human rights. However, despite these initiatives, the Resolution does not require a similar and indispensable program for the authorities and Moroccan Occupation Forces present in Western Sahara. Morocco is not part of the Statute of the International Criminal Court, nor of the Optional Protocol of the International Convention Against Torture, nor of the International Convention Against the Forced Disappearance of Persons. Morocco is supposed to respect the 1949 Geneva Conventions on International Human Rights, which requires occupying powers to respect the rights of the occupied.

Currently, the Security Council, with all its cynicism and the likely worsening of the situation, recently requested that the Secretary-General inform the Council regularly – “at least twice per annum” – of the progress in negotiations between parties. As pre-established by the OHCHR,¹² almost all the human rights violations committed in the occupied zone are a consequence of not applying the fundamental right to free self-determination of the Saharawi people. What underlies this decision – just as in all the Security Council interventions on this issue

since 1991 – is the clear intention to protect the stability of the Moroccan Monarchy, considered by the United States since its independence in 1956, as an essential ally against Communism previously and currently against fundamentalist Islam.

This blind protectionism of a dictatorship is no way to guarantee local or regional stability, but rather the complete opposite, as demonstrated by the fall of Ben Ali in Tunisia and Mubarak in Egypt, as well as the mass protests in Syria, Jordan, Algeria, and of course Morocco. Since February 20, 2011, every month we have witnessed daily protests in major Moroccan cities calling for democracy and an end to the abuses of corruption. Mohammed VI and his entourage, pressured by their French partners, have not gone beyond a cosmetic reform of the system. The new constitution,¹³ which only superficially cut the king's absolute powers, was approved in a recent referendum – as in previous elections. Barely 30 percent of the voting-age population participated due to abstention

from leftists and fundamentalists, who are surprisingly united in all the claims of the Arab protests.¹⁴

The Moroccan Monarchy's anecdotal reformism and the blind protection of the Security Council appear to move in the same direction: in the face of new challenges, and using the words of the Prince of Lampedusa in *The Leopard* (1958), 'change so that nothing changes'. Introducing a standard for democracy in institutions and speaking of human rights in resolutions regarding the Western Sahara are always desirable – *if, and only if* – the effective control of the king and his political-economic-military entourage in Morocco over the Saharawi territory and its natural resources is not threatened. However, in both scenarios, the prudish and short-term strategy may soon be over-taken by events. The Arab people are taking their destiny into their own hands in opposition to the special interests of their oligarchies and the reductionist interests of the great powers.

Every month we have witnessed daily protests in major Moroccan cities calling for democracy and an end to the abuses of corruption.

12. Confidential report of the OHCHR, November 2006, the conclusions of which were, a posteriori, confirmed by a Human Rights Watch report in December 2008.

13. Bernabé López García, “Marruecos. Cien Días para una nueva Constitución unanimidad para la galería y una”, Real Instituto Elcano, June 2011.

14. Said Kirihani, “Marruecos, la nueva constitución marroquí y el referéndum del 1 de julio”, Análisis del observatorio electoral TEIM, Universidad Autónoma de Madrid, August 2011.

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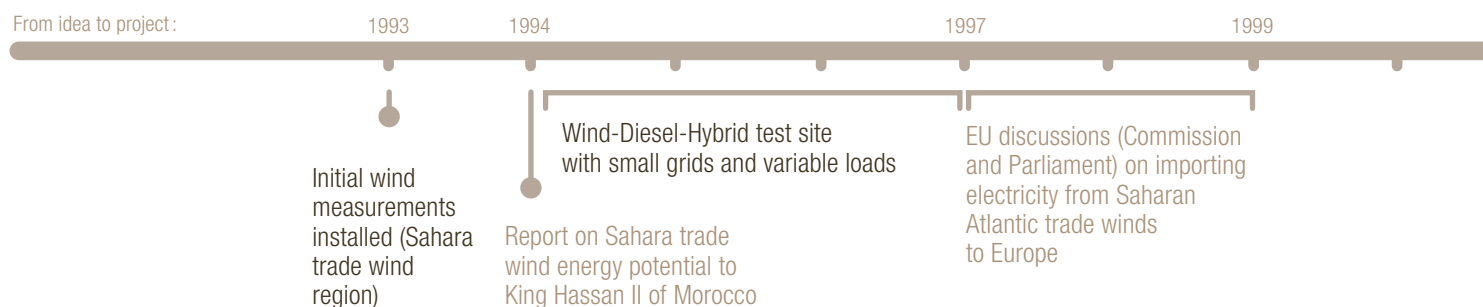


In no other place in the world is wind energy used for so many different purposes as between Morocco and Mauritania – all within an intricately inter-related system including scientists, academia, government agencies, industrial companies and NATO – that ultimately could benefit the lives of millions of people.

The winds that blow along the Atlantic coast from Morocco to Senegal represent one of the largest wind potentials available on Earth. However, due to the erratic nature of winds, steady electricity is difficult to integrate on any significant scale unless local mechanisms are developed to improve capturing wind energy.



Anemometer in desert region of Tarfaya, Morocco.



THE SAHARA WIND PROJECT

CONNECTING WIND AND WATER

Writer: Khalid Benhamou

Photographer: Natercia Caneira

Khalid Benhamou is Managing Director of Sahara Wind Inc. To view more details on the project and contact information, visit: www.saharawind.com.



2002

2003

2005

2012

Sahara Wind Inc. presents the Sahara Wind Project at the European Parliament

Joint "Morocco Sahara Wind Phase I / Tarfaya On-Grid Electricity in a Liberalized Market"; Public-Private Partnership (PPP) with Moroccan Ministry of Energy to supply Euro-Mediterranean markets with a base of 5,000 MW.

Regional projects and integrative processes: UNIDO, IPHE, IEA, USA-Morocco S&T agreement, NATO SfP-982620, capacity building industry-academia partnerships in Morocco and Mauritania.

Both based in Rabat, Morocco, **Sahara Wind Inc.** and the **International Institute for Water and Sanitation (ONEP-IEA)** work together to harness the tremendous wind potential coming off the Atlantic ocean. The ingenious system they devised functions as follows:

Combining Wind Energy and Electrolyzer Technologies

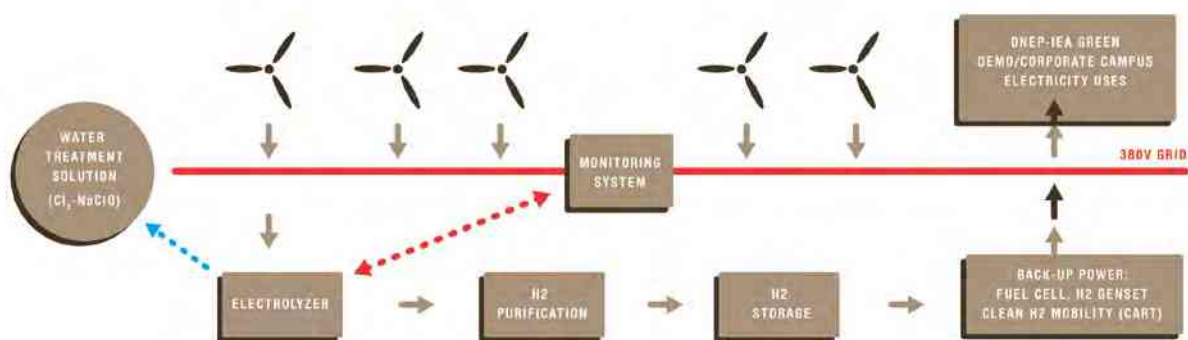
When winds blow as strong as they do in many parts of the African continent, such as Egypt, and particularly in the Sahara/Sahel region, the power generated by turbines remains nonetheless intermittent – winds are never steady. Electrolyzer technologies can enhance access to such intermittent sources of renewable energy in weaker grid infrastructures by stabilizing variable electricity levels. Electrolysis also produces chlorine, an indispensable element for the treatment and purification of potable water. The Sahara Wind Clean Hydrogen and Water Project aims to solve both energy access and water treatment solutions.

The site selected for the introductory phase of the Sahara Wind Project is located in Morocco's main water treatment facility and headquarters of the National Potable Water Office (ONEP). Coupling electrolyzers with wind turbines to produce chlorine also generates hydrogen which has multiple functions as a feedstock and energy carrier. Hydrogen can be considered a renewable energy storage medium and used as backup when fed through a fuel cell or even as a clean fuel in sustainable mobility applications.

The system devised therefore creates electricity grid stabilization and attains energy efficiency objectives while recuperating

hydrogen. Future plans are to partner with these industries which represent the main local energy loads to build an integrated energy system complementary to Sahara Wind's High Voltage DC Transmission Project. Labeled within the International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE)'s list of world hydrogen projects, this project will ultimately use hydrogen storage and hydrogen shipping via pipelines as well by enhancing local ownership of trade winds on a regional basis to support more sustainable industrial processing of mining resources, this system could become a secondary power source to both North Africa and Europe.

Labeled within the International Partnership for Hydrogen and Fuel Cells in the Economy (IPHE)'s list of world hydrogen projects, this project will ultimately use hydrogen storage and hydrogen shipping via pipelines as well.





Bouregreg water treatment station of ONEP in Rabat, Morocco.

Hydrogen can be considered a renewable energy storage medium and used as backup when fed through a fuel cell or even as a clean fuel in clean mobility applications.

Integrating Wind Energy and Water Treatment Technologies

A Green Corporate Campus is being developed within Morocco's Water and Electric Utilities headquarters to highlight the importance of integrative industrial processes when accessing renewable energies. The nearby location of the ONEP-IEA training programs within Africa's second largest water treatment station provides an operational environment that is most advantageous to finding innovative technological solutions to today's energy challenges.

Small wind turbines are to feed power into the administrative headquarters on site and the energy proceeds are then to be applied to the water treatment station nearby. To maximize output, a dual approach is being considered to test technologies in an industrial setting while demonstrating the multiple uses of green hydrogen in storing and using renewable energies within a green building concept. Combining wind turbines and hydrogen in a green urban setting addresses the lack of energy efficiency and sustainability currently impeding hydrogen technologies.

Finding the most adequate processes for the intermittent production, filtration and pressurized storage of hydrogen represent the major challenges that need to be addressed.

Hydrogen is stored in pressurized tanks and used as a fuel for electricity generation through fuel cells for power backup (emergency power), peak power shedding and in hydrogen eco-mobility applications (eco-karts). Carrying out smart grid applications with hydrogen storage as an eco-mobility solution is important to initiate and demonstrate within Morocco's water utility headquar-

ters. Fuel cell vehicles built by regional engineering schools with local automobile manufacturers create complementary solutions for clean mobility and represent one the most environmentally friendly technologies available.



Trade winds coming off the Atlantic Ocean

Finding the most adequate processes for the intermittent production, filtration and pressurized storage of hydrogen represent the major challenges that need to be addressed.

How this system is self-sustainable

Chlorine/hypochlorite production supports the ONEP-IEA sanitation demonstrator pilot plant. All components connect to the local power distribution grid of the water treatment station and the adjacent administrative headquarter complex. A signal from the small wind turbine is sent into the electrolyzer power setting to stabilize the wind mini-grid system as if it were running in a stand-alone renewable energy setting.

The system enables the wind, electrolyzer, and hydrogen components to operate independently. The flexibility and reliability of the entire system are reinforced, as a critical failure of any single component will not impact the functioning of others. End-users will benefit from the functionality of individual components as well as from the entire system that could be replicated to any industrial setting.

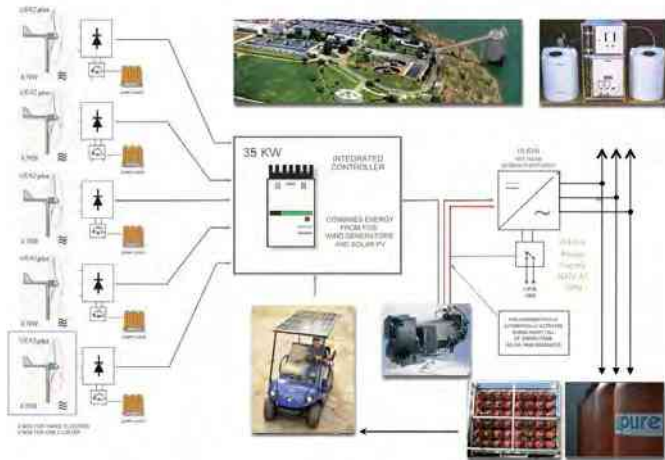


Diagram of ONEP-IEA green corporate center located at ONEP's Bouregreg water station.

Tarfaya - Pilot Project

In order to supply the local water processing plant and the surrounding Saharan region with integrated water treatment solutions, a pilot project in the windy region of Tarfaya is currently being evaluated.

TARFAYA WIND-ELECTROLYSIS:

A large pilot project in Tarfaya aims to support chlorine needs in the Saharan trade wind region. The Tarfaya pilot project will be designed with a capacity optimized for remote applications on an industrial scale. Building upon experience drawn from the first system installed at the ONEP-IEA pilot plant, this larger project will use hydrogen in grid support back-up systems as well as clean mobility and chemical feedstock applications.

WIND RESOURCE ASSESSMENT:

The production and integration of other electrolysis by-products such as oxygen, chlorine and caustic soda within local industries will rely on wind measurements carried out through the Sahara Trade Winds to Hydrogen: Applied Research for Sustainable Energy Systems network of project partners in Morocco and Mauritania. The wind assessment relies on ongoing academic-industry partnerships with telecom operators and energy users. The availability of mast tower infrastructures of the telecom operators enables accurate wind measurements.

EQUIPMENT SELECTION AND DESIGN:

The selection of equipment emanates from partner universities which have industrial engineering programs on small wind turbine component designs, integration and maintenance, electrolyzer planning, configuration and site design with hydrogen storage and fuel cell systems. Overall project costs and risks associated with technology deployment are likely to be reduced as future design and maintenance issues will benefit from experiences of previously deployed systems.



Desalination plant on the Saharan coastline, Tarfaya, 2010.

Once training and expertise are available, renewable energy access can be addressed in a much broader synergetic context.

Green Campus Connections

The concept of the 'Green Corporate Campus' is to promote the development of local and international training and sensitization activities of ONEP-IEA. Along with Morocco's engineering universities, this platform could be introduced within Morocco-UNIDO's automotive industry program.

This will be complementary to the long-term regional collaborative applied research framework that has been established between educational institutions in Morocco and Mauritania. The Sahara Trade Winds to Hydrogen: Applied Research for Sustainable Energy Systems Program involves 18 institutions from six different countries. This end-user driven applied research project is focused on facilitating integrated access to wind energy through industrial synergies. The project is carried out in partnership with local industries, public utilities and the universities of Morocco and Mauritania.

Project partners from the NATO Mediterranean Dialogue countries are the École Nationale Supérieure d'Arts et Métiers (ENSAM) and Al-Akhawayn University in Morocco, and the University of Nouakchott in Mauritania. The NATO country project partners are the USA (State Department, Bureau of Oceans and International Environmental and Scientific Affairs-OES), France (Commisariat à l'Énergie Atomique et aux Energies Alternatives), Germany (NRW) and Turkey (UNIDO-ICHET). First presented at the USA-Morocco Science & Technology Agreement signing ceremony in 2006, the project opened regional perspectives on integrated renewable

energy applications such as green campuses, smart grids, green mobility and synergetic industrial processes.

Co-developing wind-electrolysis technologies enables university campuses fed by small wind turbines to stabilize their power grids with electrolyzers and to become living laboratories of renewable energy integration through hydrogen storage. An industrial engineering program for building small wind turbines enables

Fostering regional (south/south) collaboration in clean energy technologies to tackle energy access challenges is a critical issue.

engineering students to better address the operation and maintenance of these systems. In seeking stand-alone power supply solutions, telecom operators agreed to provide their mast infrastructures network for wind measurements. An exhaustive network of telecom masts towers is now available in Morocco and Mauritania for a regional assessment of trade wind resources.

To match the needs of local industries, a new training curriculum is being devised at the University of Nouakchott, Mauritania. In Morocco, the Al-Akhawayn University's Master of Science in Sustainable Energy Management program received a first-year record enrolment. Fuel-cell vehicle prototypes co-developed at

Ecole Mohammedia d'Ingénieurs – Morocco's largest engineering school – in partnership with local automotive industries, will be tested utilizing an on-campus green-hydrogen filling station.

A more comprehensive approach for access to and potential applications of Saharan trade winds will enable a more effective tackling of current regional social, economic, and political challenges. The processing of mineral resources, while utilizing the region's wind potential could for instance provide enhanced

sustainability. When applied to phosphates – a critical element to world food security – or iron-ore processing, resource efficiencies may be seen in a different light. Once training and expertise are available, renewable energy access can be addressed in a much broader synergetic context. Besides enhancing local ownership of resources, this approach is complementary to renewable energy developments occurring elsewhere in Europe. This enables a leveraging of both social and technological benefits derived from green energies.

Connecting with Europe and the Mediterranean

Given wind energy's indisputable importance to the economies of both North Africa and Europe in the near future, efforts have been mobilized to meet the former's education, training and capacity building needs. The Sahara Wind Project's phased implementation and initial capacity of 400-500 MW provides a market-based, locally integrated economic development rationale justifying the transfer of wind technologies into developing countries.

Considering that Morocco is 97 percent dependent on imported fossil fuels and Mauritania has tremendous difficulties to access electricity, problems related to energy scarcity, higher costs of energy and limited access to water, combined with environmental degradation, desertification and demographic pressure, could in the long term, generate great economic distress. The building of scientific capacities that can generate a constructive dynamic grouped around a booming sustainable energy industry could provide economic alternatives and curb migration, thus contributing to social integration. Fostering regional (south/south) collaboration in clean energy

technologies to tackle energy access challenges is a critical issue. Beyond addressing Morocco and Mauritania's immediate needs, supporting the region's transition from a fossil fuel system to one driven by renewables is a strategic priority for long-term security and stability in Saharan, Mediterranean and European countries.

The Sahara Wind Project is involved in focus groups established in the relevant ministries to assess the training and education needs required by Morocco's Solar and Wind Energy plans for 2 gigawatts each by 2020. Within this context, applied research and development are key aspects to consider, particularly when ownership of a technology or process is sought.

NATO supports the Sahara Wind Project



The NATO Science for Peace and Security (SPS) Program is a policy tool that enhances regional cooperation through scientific projects and dialogues between NATO and its partners. Science has the unique ability to provide solutions to security challenges as well as foster collaboration even between disparate nations and regions. The SPS program consists of NATO-funded activities, as well as nationally funded SPS activities.

For more information on the NATO SPS program, visit: www.nato.int/science

WINDMADE

COMMERCIALIZING RENEWABLE ENERGY PRODUCTS

Writer: Sijbren de Jong

Sijbren de Jong is Energy Editor at *Revolve Magazine* and Research Fellow for Energy Security & Climate Change at the Leuven Center for Global Governance Studies, Belgium.

Revolve talks to Angelika Pullen, Director of Communications at WindMade, about the launch of the label and the future of renewable products and cities.

On November 18, 2011, several large global enterprises including Motorola Mobility, Deutsche Bank, Bloomberg, Method and BD (Becton, Dickinson and Co.), announced their commitment to source at least one quarter of their energy needs from wind turbines. The announcement emanates from these companies' commitment to become certified under the recently launched WindMade consumer label.

WindMade is a non-profit organization supported by Vestas Wind Systems, the Global Wind Energy Council (GWEC), WWF, the UN Global Compact, the LEGO Group and Bloomberg. The label represents the world's first global consumer label for companies and products that use windpower to produce their products and to power their operations. Companies can communicate in a transparent way the share of wind power and other renewable sources they use as part of the overall power demand of their operations.

"The ultimate goal is to create a kind of 'consumer pull effect' which will drive demand for wind power operations worldwide and boost investments that enable the renewable energy market to grow – and not limited to those markets where wind power has already taken off," says Angelika Pullen.

The WindMade 'company and organization label' enables enterprises, once authorized, to use the label for their corporate communications such as print, online, TV and radio advertising, reports, press releases, stationary, signage on buildings and retail facilities.

In a world where consumers are becoming increasingly sensitive to sustainability and companies that support it – according to a recent survey¹, 90 percent of consumers worldwide wish to see more renewable energy and 79 percent have a more positive perception of brands produced with renewable energy – the marketing potential is obvious and it should thus come as no surprise that companies are eager to jump on the renewable bandwagon.

Currently, a second standard is in the making which would allow individual products to bear WindMade certification. Pullen states that: "Obviously global product mar-



kets are where the real progress can be made. Leading consumer brands carry the potential to give WindMade the required level of visibility." The WindMade product label will be introduced in 2012.

Pullen believes WindMade can also do much more: "One could think of making 'events' WindMade certified for example. Also, there are cities in the north of Germany and Denmark which generate a vast share of their electricity from wind power and one could envision the creation of a WindMade standard for cities. After all, if we are to make a real impact, we ought to adopt a visionary perspective."

With the signing on of giants Deutsche Bank, Motorola, PricewaterhouseCoopers, Bloomberg and Lego, this visionary perspective seems to have begun paying off and the WindMade standard could quite possibly be en route to becoming a trusted logo on consumer brands.

Whether one day we will live in WindMade cities, consuming WindMade products remains to be seen. However, it is a tell-tale sign that sustainability is moving out of the traditional 'do-gooder sector' and into the realm of industry where its business potential is firmly embraced. Ultimately, such a development can only be strongly supported.

1. Global Consumer Wind Study 2011

Commissioned by Vestas and carried out by TNS Gallup in 26 markets among 31.000 consumers and 31 leading global brands, the survey showed that 50 percent of consumers worldwide would be willing to pay extra for products based on renewable energy. Sixty-five percent of respondents would prefer to purchase brands produced through wind energy and the survey indicated that consumers in general want more information about the extent to which renewable energy is used in the production of brands, for instance through labeling. www.businessgreen.com.

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VIEWS



François, Moreno Bormann Circus, Paris, 2007.

«The Other Family»

BY NICOLA LO CALZO

Images: Courtesy Luzphoto Agency

A portfolio curated by Stephan De Broyer

“The Other Family” is an autobiographical project by the Italian photographer, Nicola Lo Calzo (b. 1979, Turin), that revolves around the idea of diversity and the human family at large (as inspired by the famous exposition “The Family of Man” organized by Edward Steichen at the MoMA in 1955). This portrait ensemble of men, women and children gradually grew to include the photographer’s close entourage of friends and today constitutes his intimate and personal universe.

In reference to the great tradition of portrait photography, from August Sander to our days, and through the subjective re-appropriation of Italian neo-realism and Pasolini’s work, Lo Calzo’s images exemplify an eclectic humanity without borders, insisting on the uniqueness of each individual while also pertaining to one large family. As Diane Arbus said: “Monsters are born with their trauma. They have already passed their test. They are aristocrats.” But here the aristocrats are no longer “monsters”. These are people, more or less integrated into the social fabric, that are and remain different by birth, choice or accident.

On this subject, the photographer invites us to reflect on the complex and often unresolved relation between ourselves and the other, while also providing a perspective on diversity as a capital and founding value of society. For Nicola Lo Calzo, the subject’s dignity guarantees the photograph’s legitimacy. This choice is ideological and esthetical, but also based on a very strong personal deontology. This is how the portraits of Ulrich, Vyva or Elie, like all the other protagonists of this series, express an individual and particular diversity while being a parallel testimony of a complex and multiple reality.

Rosa Manno, Fratelli Alinari,
Foundation for the History of Photography



Christophe, in his atelier, Paris, 2007.



Silvana, Moreno Bormann Circus, Paris, 2007.



Rodolphe, trapeze artist, Moreno Bormann Circus, Paris, 2007.



Behind the scenes, Moreno Bormann Circus, Paris, 2007.



Edoardo & Rebecca, birthday party, Torino, 2007



Nelly, family house, Bafoussam, Cameroon, 2009.



Anonymous musician, Saint Louis Island, Paris, 2008.



Irene, Albenga Beach, Savona, Italy, 2007.



Gabriel, corsetiere, Nanterre, Paris, 2010.



Mrs. Doubtfire's double, Latin Quarter, Paris, 2007.

All Prints are available on Fine Art Paper: More info at www.nicolalocalzo.com

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Solo Projects

20 YEARS ON THE OTHER SIDE

Writer: Edgar Kosma

Illustrator: Alexia de Ville

Edgar Kosma (b. 1979, Namur) is a Belgian francophone author based in Brussels since 1998. His first novel, *Eternels instants* (2010), and another story “Les sens et l’essence” within the collection, *25 minitrips en wagon-lit décapotable* (2010), are available at: www.edgarkosma.com

21:59

I've slept more than seven thousand three hundred times on this bed. Not counting the naps. And no one has ever come to check the state of the mattress. I guess I've never really complained. I've spent as much time between these four walls as everywhere else during the first half of my life. Spent. That's all time does here. Slowly. People too. Noiselessly.

Fiction originally published in French by the Fédération Wallonie-Bruxelles in 2011 on the occasion of the 20 years of Frenzy Reading.



Translated by *Revolve*.



22:11

The math is simple: I'm forty and I've been here for twenty years. Result: two decades gutted, emptied, wasted for a hold-up that went wrong. Especially for the cashier. Poor girl... And for the cop too. He shot at me; he had it coming. He was just doing his job... What a waste. All of that for a couple thousand francs. What would I have done with it? I always wonder. There was just enough to buy a second-hand BMW; it really wasn't worth it. But I couldn't have known. I had been told the van came by on Fridays. Had I gotten away with it, would I have lived holed up, like some rabid animal, just waiting to start over? All of my acts would have brought me here in the end. As if I only ever existed for this. How could I have been so stupid?

One essential difference separates free people from the rest: while the former dream of time slowing down, the latter desire its acceleration.

22:36

Twenty years of prison is, above all, twenty years of solitude. And believe me, time seems very long when it's not shared. Of course, I had contact with some of the

inmates, but most of them were just stopping through and were not very talkative. In here, feelings swallow themselves before being perceived and words quickly fall into line. The masonry teacher was nice to me, but the training was stopped the day some guy tried stabbing a trowel into his head. We never saw him since. My mother is the only one who visits. Every first Sunday of the month between ten and eleven o'clock we meet in the parlor. It's sort of like mass for us. Or perhaps our confessional. My mother leaves her house early, walks to the train station, in the summer or winter, where she takes a train into town before getting into a bus that drops her across the street from the prison. Four hours one way to talk to me one hour. Who else would do that every month for twenty years? She was forty-seven when I was locked up and today, although she's never said so, this is all becoming painful for her. I've always welcomed her visits, even if I never have much to tell her. What could I confide to her? My semblance of a life, my nothingness, my boredom? You don't speak about such things. So, instead of talking about my slender hopes, I listen: one of her cats was run over in front of her house, she left flowers on my father's grave, she adopted a new cat, but doesn't dare give it a name for fear of losing it, a cancer is growing in the neighbor's throat, ivy is spreading around the house and nobody is there to trim it... None of this really interests me. But I drink up her words, taking in everything that can help pass the time. Every second is a victory. Against what? One essential difference separates free people from the rest: while the former dream of time slowing down, the latter desire its acceleration. Besides mom, no one has ever come. At first there had been a few friends or members of the family. They seemed awkward seeing me here. It had been too long. Nothing was foreseeable. I suspect some took advantage of me being here to see what reality was like on the other side. They never looked me in the eyes.



23:46

Sometimes I find myself talking with Raul, the warden who brings me my lunch on weekdays. I've often caught myself waiting for him. My stomach is like clockwork. He always knocks between 12:23 and 12:29 and asks me through the peephole if everything is alright. "It could be better..." I answer artlessly as the empty tray from the morning is exchanged with the new one, never full enough to my taste. Raul always calls me by my name. Sometimes we talk about the weather, a modification in the internal regulations or football results. He's a Barcelona supporter. Like me. He recently told me that since Guardiola is the trainer they are stronger than they were under Cruyff. To me, it's strange. I always knew Guardiola as a player. It was the old generation. Mine.

00:21

Twenty years ago, I naively thought that money would make me endlessly happy. It turned out otherwise. Twenty years, that was also the age of the cashier. The first shot went off by itself, but nobody believed me. As for the next shots, I wasn't really myself anymore. Twenty years is short. It's long too. It depends which side you're on. As always.

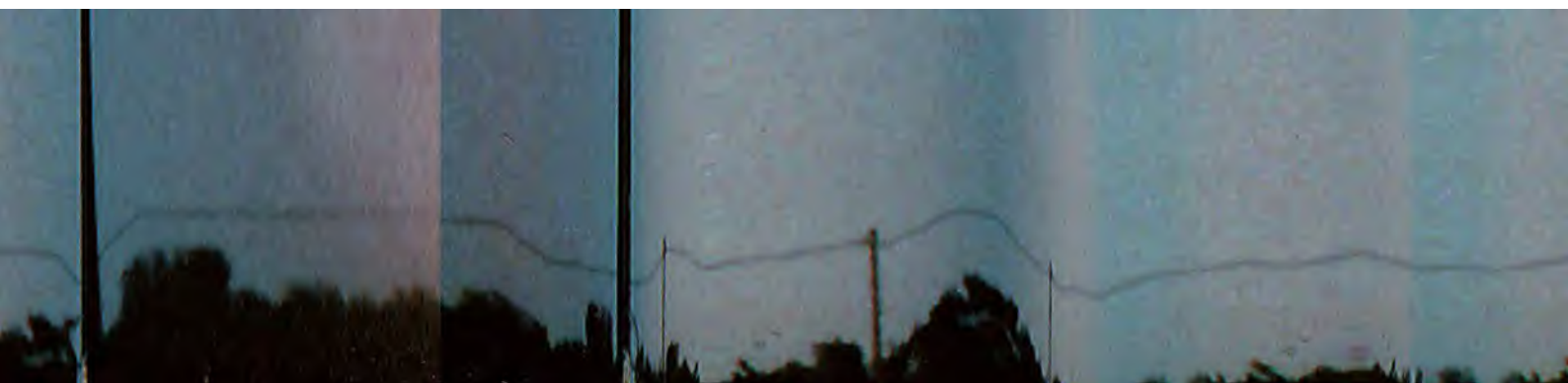
00:42

My cell is my only horizon. Eight square meters with a narrow view onto the yard, a bed, a table, a chair, a shelf, a toilet, a sink, a mirror and a television. While the mirror is the best way to observe the passing of time, the TV has become the most comfortable way to endure its passing. I watched it quite a bit the first few years, when the mass of time facing me seemed insurmountable, but I gradually lost interest. Those people, beautiful, rich and free, consuming without concern for the future or for me, complaining of everything and nothing, oblivious to their fortune and happiness – this profoundly disgusted me. Whether they are real or fiction doesn't change much. I was suffocated by those cities, those bodies, those seas that I could neither touch nor feel. Do the program creators consider the poor, the insane and the convicts who watch them? Perhaps they think only of us. But why then do they feel no guilt? Money questions, money answers. Integrating televisions into prison cells is a constitutive element of the punitive system, aiming to ceaselessly remind us of our past and our condition. Why would I have punished myself? One sentence is enough.

While the mirror is the best way to observe the passing of time,
the TV has become the most comfortable way to endure its passing.

01:23

In my absence, so many things must have happened in the world, as I spent every day watching the same square of sky, blue, now gray, often black. I know nothing of the world that awaits me and I would be a poor contender on 'Going for Gold'. When I was twenty I was very educated, but since then I've become an ignorant champion. In all categories. Prison sort of works like an artificial coma. What was the quizmaster's name? My mother, who watched it every day, liked him. I'll ask her. Maybe one day we'll watch it together. Although it would be surprising that after all this time the show still existed.



It is difficult to be interested in a world
that excludes us.

01:56

It is difficult to be interested in a world that excludes us. As soon as I'm part of it again I will have to adapt. And fast. Is it ever possible to catch up?

02:04

Eight years ago, they opened a library in wing D. To have access you had to be in Category A – which means “inmate with low aggressiveness potential” – then make a written request to the director and wait patiently for the answer that would eventually arrive. I've always wondered what the director does with his time. If the answer is positive, a warden accompanies you at your given time slot. Most of them only go once, borrow a book they don't read and never go back. I made my written request a few months after it opened and a couple weeks later I got my pass. Being surrounded by those imposing piles of books that all looked the same to me was disarming at first. Having never finished one, it was quite hard for me to choose. Since the warden exhibited tangible signs of impatience, I picked three or four of the thinnest ones at random. I don't remember the two or three I only read half-way, but I clearly recall the last one. It took place in Los Angeles and it was the story of a cop, a good guy who was only a little crooked, in charge of finding a missing person. The least you could say was that his investigation was floundering. After some incredible

suspense you find out that the man he's looking for didn't even exist. I read it until the very last sentence in almost a single sitting. I experienced a pleasure unknown to me. As soon as I closed the book I wrote another request to the director, hoping that his reply would be faster this time. After a few months, I was reading faster and I threw myself into detective and adventure novels. Since the library didn't renew its stock very much, I often re-read the ones I liked most. Never mind the book, the author, the hero, the time or the place. One day I was lost at sea with an old man and a swordfish, the next I was traveling on a train with a detective, later I was shipwrecked on island with natives... I felt free with them. Perhaps I had never been free. Still, my condition always overtook me and I always ended up closing the book. How many times could I have circled the earth in twenty years?

02:58

We aren't put here for that, but nobody can stop us from dreaming. It's our ultimate freedom. So we shut our eyes. And we wait for it to come. Why are we put here? Twenty years of detention have not given an answer.

03:11

I'll have to find a job. Anything. As long as it's legit. I've lost enough time. I'll have to move about and earn my way. But what could I possibly do, me, who's never done anything, who's too old to do things I would still have to learn? Four years ago I took a masonry class, but I can't deal with walls anymore, I've had enough of them. I could be a bus driver. Or a trucker. Crossing Europe by truck; I could see the world. I'm forty years old and I've never crossed the border. I wonder what it's like on the other side. I have such a thirst for freedom. With my first salary, I'll buy myself an encyclopedia. Or a dictionary. Something big with lots of volumes. It wouldn't hurt. I could read them lying in the sun. I would also need a shelf on which to store them. Shouldn't I apply to a library? Would they ask me for a certificate of good conduct? There couldn't be much money. At least I don't think so. In fact, I've never set foot in any other library than this one. It could work. I'll try my luck. At first, I could stack books. That's a career with a future. There will always be books, won't there?



The strangest part of a long wait is that once it's over, you sort of forget how long it lasted.

03:30

The strangest part of a long wait is that once it's over, you sort of forget how long it lasted.

03:36

How will I find my friends? In twenty years time, everything must have changed for them. Are they still alive? Most of them will have a career, will have built a family, a house. Without ever finding time to think of me. The only certainty: my mother still lives in the same place. It will be a starting point. I'll need a phone book. I hope she has one. I'll also need to remember their names. I'll contact the ones whose names I remember first. Maybe they will help me find the others. They probably won't welcome me with open arms. Will they let me come near their children? Will they see an old friend, the twenty-year-old kid they knew or an ex-convict? Maybe at first I will be alone.

04:25

Who knows what it's like to wait twenty years for deliverance? How long does it take to get impatient on the other side? Fifteen minutes?

04:39

With a little luck I still have forty years before me. Maybe even a little more. I smoke a lot, but I keep in good shape. And the food here doesn't make us fat. What we dream of here is everything we don't have. And what we don't have has to be elsewhere. On the other side. When I get out, the first thing I'm going to do after leaving my things at my mom's place is see the city. I'll go to a café I've never been to before, order a beer and savor it while smoking cigarette after cigarette, without anyone to stop me. All this time I haven't had a drink, I wonder what it will do to me. I hope there will be some girls. Maybe have a second drink. Who will stop me? If I meet one, we will have to go to her place. It would be impossible at my mother's. At my age... especially the first night. Then, I would go home to take a bath. After twenty years of lukewarm showers, I would let the hot water run until it would burn my skin. And at nightfall, I could always go to the whorehouse. I would need money for all of that. How much does a girl cost these days? I've never had a Euro to spend or an honest earning. I'll have to find a job first.



05:22

I'm forty and I don't know the world any more than a twenty-year-old kid does. You only have one life; it would be too stupid to die an idiot. Where will I be in twenty years?

05:28

My freedom starts on other side of the door. But where does it stop? These past years, traveling through books has satisfied my needs. I didn't really have any choice. In truth, I would have been happy to get out, if only for a few hours. But my requests were always denied. Soon, if I want to, I'll be able to buy a plane ticket to any destination and fly away. Far. This simple possibility moves me. Wouldn't it be remarkable to roam across India, Japan or the United States – those faraway lands that I barely dare to imagine? It would be a beautiful revenge. I have the right to a second life.

05:59

As the first sunrays reach my cell, sleep overwhelms me. I'm entering the liberation phase.

07:31

There's a knock at the door: "Jacobs, get your things ready. Here are a few bags. We'll be back for you in a half hour! Be ready!" I didn't sleep much and I need some time to understand what is happening. I don't have many things. I only need a few minutes to stuff them into some bags. After twenty years of doing nothing I'm suddenly struck with the anxiety of having to wait a couple of minutes. I open the window and light a cigarette. The sun is now above the women's quarters, while a fly passes before me. My gaze follows its flight. At eight o'clock sharp, the sound of keys in the lock is followed by the door opening. I'm happy to see Raul. "There are still some books on the table..." I tell him, pointing my finger as if he hadn't noticed them. "No problem," he answers, "we'll take care of them. Follow me..." In the hall, I try speaking to him, but nothing comes out. He takes me to the secretariat where an employee has me sign a few papers and returns my personal things: six hundred francs, three keys, a lighter and my ID card bearing my juvenile portrait. I say, "Not twenty anymore..." The employee, not so talkative, answers with an understanding smile. I stuff everything into my pockets, go out to the hall and walk towards the door. Raul is gone. I would have liked to shake his hand. The automatic unlocking is triggered. All I have to do is push. On the other side, life does not wait.

08:13





Plastic debris collected in the North Atlantic Gyre, 2010.



Having just returned from another trip to collect more material in Montevideo, Santiago and the most remote inhabited island in the world, Easter Island, **Maarten Vanden Eynde** talks to *Revolve* about the development of his Plastic Reef Project, the Foundation Enough Room for Space, and his experience in Georgia.

The Plastic Reef Project

Part I of II



First sample of the Plastic Reef, 2008-12, Los Angeles, USA, 2009.

WHAT'S THE ORIGIN OF THE PLASTIC REEF PROJECT?

In March 2008, I found out that there was a "floating landfill" about the size of the United States, made up of plastic particles, swirling in the Pacific Ocean about 1,000 miles west of California and 1,000 miles north of the Hawaiian Islands. Almost nobody knew about it at that time so I wanted to raise awareness about this incredible phenomenon and find out what could be done with this new 'raw' material.

In January 2009, I visited Charles Moore, marine researcher at the Algalita Marina Research Foundation in Long Beach, California, who discovered the Plastic Garbage Patch in 1997. He gave me a first sample of plastic debris from the North Pacific Gyre which I melted into a small plastic coral reef, the size of a football. The trash became beautiful again and seemed to solve two problems at the same time: the plastic in the ocean and the disappearing coral reefs around the world.

I want to have samples
from all five ocean gyres and
to see the reef become a
monumental sculpture
of 5 x 10 m².

I decided to make the Plastic Reef as big as possible and went to the Hawaiian Islands which are located in the center of the North Pacific Gyre and are getting an incredible amount of plastic flotsam on their beaches. For one day, I joined the volunteer group B.E.A.C.H. that is collecting, categorizing and counting every piece of plastic they find. They shipped five boxes to me after my departure which made the reef grow to about 1 m².

In February 2010, I joined the Pangaea Explorations on their boat *Sea Dragon*, which is doing research on plastic pollution worldwide. We crossed the Atlantic Ocean to gather as much plastic as possible and melt it into the growing Plastic Reef. In total, I fished out almost 400 kilos, making the Plastic Reef, after three weeks of melting, about 2 x 3 m². In the end, I want to have samples from all five ocean gyres and to have the reef grow in 2012 into a monumental sculpture of 5 x 10 m². The whole process and evolution of the project can be followed at: www.plasticreef.com

HOW LONG WILL THE PLASTIC REEF PROJECT CONTINUE?

The physical work should be finished by the end of 2012, closing a 5 year working and research period. I want to launch a publication about the project as well which will be distributed worldwide and will somehow continue the dialogue about the problematic properties of plastic.

WHAT'S YOUR ULTIMATE GOAL WITH THIS PROJECT?

The main goal is to raise awareness about the issue of plastic pollution. In parallel to the physical work, I also participate in workshops and think tanks to imagine possible solutions for this incredible issue. With my work I won't solve the problem directly, but it might stimulate people with the necessary skills to do it and hopefully help people to deal with plastic in a more conscientious way. Plastic is part and parcel of our throw away consumer culture, but although it is being discarded so quickly, it is one of the slowest degrading materials. Plastic debris will be the longest lasting remnant of human civilization.

Plastic debris will
be the longest
lasting remnant
of human
civilization.



Plastic debris floating in the South Pacific Ocean, Easter Island, 2011.

WHAT ARE SOME OF YOUR EARLIER INFLUENCES?

I'm interested in many things: I'm a typical *homo polymaticus* – a multi-human. I like archaeology, geology, ethnography, anthropology, cosmology, philosophy... I can be fascinated about a complex society of ants, while simultaneously wanting to know as much as possible about the hunt for dark matter or the so called 'god' particle in the universe. Things coming from the 'natural' world have an influence on my work as an artist as much if not more than the work of other artists.

WHAT ARE SOME OF YOUR OTHER ONGOING PROJECTS?

I'm involved with the Foundation Enough Room for Space (www.enoughroomforspace.org) that I started with Marjolijn Dijkman in 2005. The organization is open for other participants and functions as a platform for various projects that are organized and coordinated

by different people. ERforS stimulates the creation of physical, virtual and mental space for cultural initiatives by initiating and coordinating events and residence/research projects worldwide. ERforS stands for openness, diversity and experiment. It wants to get and give an image, as diverse as possible, of the earth and its inhabitants. With art as a stimulator, communicator and initiator, ERforS wants to expose different processes of being part of this world and how we deal with our environment.

Working together with different institutions, establishments and initiatives, a rich breeding ground is created for the constantly changing group of participants. The group includes visual artists, writers, film-makers, scientists and designers. Depending on the geographical and institutional location, the project is then elaborated with the length, amount of participants, ways of documenting and presenting a concept or starting point to provide a final

outcome. Every possible way of collaborating or working together is being utilized and used for the development and creation of committed art. Cross-cultural experiences are one of the reasons for Enough Room for Space. It is only by looking at the other that one finds himself.

TELL US ABOUT YOUR EXPERIENCE IN GEORGIA.

I was first in Georgia in 2006 within the framework of an exchange project by Enough Room for Space and Expodium in collaboration with GeoAIR. After the Rose Revolution in 2003, the new Georgian president Mikheil Saakashvili called back his fellow country-men, who had fled Georgia in the past decades, to come and help rebuild the once prosperous country into a modern western democracy. We decided to respond to this call as well and see how a new democracy was being introduced or rather implanted and what the side-effects would be from such an enormous political and sociological shift.

Eight artists living in the Netherlands went to Tbilisi and a few months later eight Georgian artists went to the Netherlands for a similar research period. A documentary was made of both periods and a presentation took place of newly developed works.

Five years later, we went back and the shock was enormous. The plans to revive the country were there five years ago, but we only saw the result when we came back. Tbilisi and several other cities are pimped beyond recognition. They all start to look like any other European restored capital. Many of the

Enough Room for Space

It is only by looking at the other that one finds himself.

typical ancient old buildings are rebuilt in a fake old style and fancy coffee shops have replaced the street vendors, helped by an incredibly large police force in brand new cars and offices. Free artistic activity is almost non-existent. Some make crap paintings for the tourist market; some become hobby artists next to their regular jobs at a bank or bar. The most interesting and ambitious artists moved out of the country. I can't blame them. The capitalist carpet which is being rolled over Georgia is horribly suffocating.

DO YOU BELIEVE GLOBALIZATION HAS BEEN POSITIVE?

I don't think it is just positive or negative. It is always both, because it depends who is benefiting from it. Some animals thrive in newly conquered areas at the expense of others, usually indigenous species. Humans are no exception from this phenomenon; one man's meat is another man's poison.

On a personal level, I love to travel to other places in the world and I love to be able to eat a fresh kiwi from New Zealand any time a year coming from my local supermarket, but what is the price we have to pay for these luxuries? And I'm not talking about money... I would describe globalization more as unavoidable and possibly even natural, but never just positive.

PLASTIC

The word "plastic" comes from the Greek "plastikos" meaning "to form". Plastic can be heated and molded into forms, such as the Plastic Reef sculpture.

Plastic is the most used material in the world – also one of the longest to disintegrate.

Plastic is a synthetic or semi-synthetic material made up of a wide range of organic polymers, such as polyethylene and nylon.

Plastic is insoluble in water and most degrade very slowly or not at all. Some companies are exploring how to make more biodegradable plastics for packing.

Plastic waste has been accumulating over the years and has been coalescing with the rotating movement of the ocean currents (gyres) into Great Garbage Patches of debris the size of the United States. The Plastic Reef Project includes plastic samples from all 5 ocean gyres.

Petroleum and natural gas are needed to make most plastics, which means that with depleting oil reserves, companies are looking into shale gas and tar sands to extract petroleum to make plastics. But such extraction processes are expensive and likely to push the price of plastic into exorbitant, which hopefully will stimulate companies to find less polluting alternatives to synthetic plastic.

Part II: more on the properties of plastics, the flow of the ocean gyres, plus the final Plastic Reef Project at Manifesta9 coming this summer!

MANIFESTA 9

The European Biennial of Contemporary Art June 2 – September 30, 2012 Genk, Limburg, Belgium

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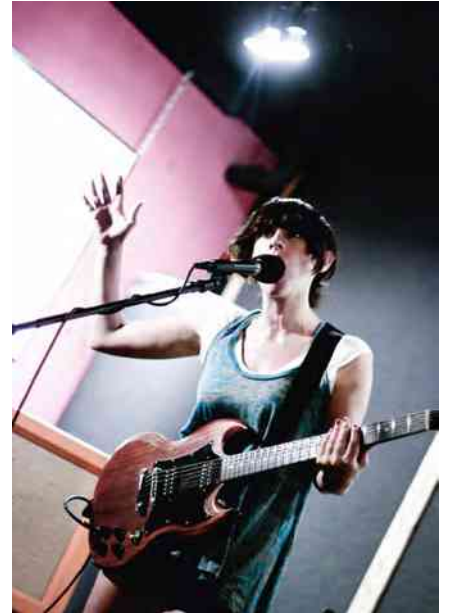


HAPPY HOLLOWS

From their studio in Los Angeles, California, indie rock trio band — Happy Hollows — talks to *Revolve* about their first album *Spells*, the solo album *Pisces* by lead singer **Sarah Negahdari** and inspiration for their next songs.



“IF WE
COULD
BOTTLE
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WHAT DO YOU AIM TO TRANSMIT WITH YOUR MUSIC?

I don't aim to transmit anything too deep. I just hope the energy of love and creation comes through when we play!

WHAT'S BEEN THE MOST REWARDING MOMENT FOR YOU AS A BAND?

There have been many for me. It's hard to pick one. In fact, this very moment, right now, feels like the most rewarding moment. We have a new drummer, and we are all writing new songs together. We are experimenting with new ways of making music and love just making music together. Of all the adventures and shows and events, this feels the best: just creating together.

WHAT ARE YOUR CURRENT PROJECTS/PIECES ABOUT?

My solo project is called *Pisces*, and it is a group of songs that have folk elements to them. It is slightly softer music that does not fit in with the music of Happy Hollows. Charlie helped out a lot. He played bass and helped produce the songs. Chris, our original drummer, played drums. The album is much more feminine. *Pisces* is like the moon, where Happy Hollows is like the sun. My album is entirely female in feel, which I needed after all these years of making music with boys! I just let the songs be about love, and mystical things like sex, and the moon, and the earth, and spirituality. All the things that sometimes Charlie would

be uncomfortable with me singing about in Happy Hollows I got to do in *Pisces*. So, it is the other half of me, like the moon is half and the sun is half, and together, they share their time with the earth!

IS THE HAPPY HOLLOWS NEXT ALBUM ALSO DIFFERENT FROM YOUR PREVIOUS WORK?

Our next album is very different in feel, mostly because we are incorporating the use of synthesizers a lot more. It was always part of the plan though. When I met Charlie, he had been mostly an electronic musician, but at that time he said he wanted to focus on the bass for a while. But now he has returned to his electronic roots. I thought that sounded like a fun idea.

SARAH, AS LEAD SINGER AND GUITARIST, OF IRANIAN-AMERICAN ROOTS, ARE YOU OPEN TO EXPLORING MORE 'ORIENTAL'-STYLE MUSIC?

Yes, my father is Persian and lived his entire life in Iran until moving to the U.S. in

the late 1970s. I'm always open to different styles! I grew up with Persian music all around me, so I think it seeped in. Check out my solo song "Flower Toes"! About a minute and a half in it gets very Middle Eastern in feel, which I really dig!

HAVE YOU ESTABLISHED CONTACTS WITH LOCAL MUSICIANS IN IRAN?

I communicate with my family in Iran, and they are most definitely not musicians. I would love to meet artists from Iran though!

RICHIE, YOU'RE THE NEW DRUMMER SINCE EARLY 2011, HOW HAS THIS BEEN FOR YOU JOINING THE HAPPY HOLLOWS AFTER THEIR GREAT FIRST ALBUM *SPELLS*? WHAT ELSE DO YOU DO IN LIFE?

Joining the Happy Hollows has been great! Sarah and Charlie are the coolest and both are extremely talented musicians. They have made my transition into the band quite easy.

Spells is a really great album, I knew right



when I first heard it that I should audition for the band and I am glad I did. We are very excited about the new songs! The new record will be a bit of a change from *Spells*, but it is always good to keep things new and fresh as an artist.

When I am not playing drums, I love to skateboard and to hang out with my friends and family.

CHARLES MAHONEY, THE BASSIST AND ELECTRONIC 'BRAIN' OF THE BAND, WHAT'S YOUR FAVORITE MOMENT ON STAGE?

My favorite moment on stage is getting to the point where you don't have to think about what you are doing musically. At that point, when you've played the songs so much that it is second nature, it's possible to really enjoy the experience.

Sarah's exuberance is what keeps us all going. If it weren't for that, we'd be cooped up in an office somewhere and making sure that all the figures were correct on

this quarter's financial statements. If we could bottle Sarah's exuberance, it would sell faster than Coca-Cola.

SARAH, WHERE DO YOU FIND THIS ENERGY? WHERE DO YOU FIND SUCH INSPIRATION?

I don't know where my energy comes from, it just flows through me. It is joy. It is really that simple. I love to perform and I love to play music and I love having a team of supporters and I love being creative. Human beings inspire me. I love people. I'm in awe of people. For instance, I just saw this documentary about Robert Moog, the man who created Moog synthesizers. He was so whacky and adorable and inspiring. I will probably write a song about him. Everything inspires me. Life is so amazing! So inspiring! All these different people all so unique and precious. Every single person. Everything is being held up by gravity and somehow it's all working. Life!

SARAH, AS THE SONG WRITER – WHAT ARE SOME OF YOUR FAVORITE LYRICS? WHERE DO THEY COME FROM?

Lyrics mostly come when I first write the song. Otherwise, they come at totally random hours of the day or night. It is a really a bizarre experience because it's like I'm trying to hear the song speak to me. I try to hear what the song is saying the lyrics are. It never feels like they are my lyrics, or even my song. It's as if I'm translating something that is already made and it's coming through me.

Some of my favorite lyrics are on my *Pisces* album. I like the lyrics from my song "Flower Toes":

*All of a sudden the answers
are coming to my head
I'm one and the same with you
and we were never divided
An infinitesimal dot,
or as big as the sun is
It's everywhere all the time,
all of us, everything, nothing.*

HOW DO YOU FIND INNER PEACE WITH ALL THE NOISE? IS THERE A SPECIAL 'PLACE' YOU GO TO WHERE YOUR THOUGHTS NO LONGER BELONG TO YOU?

These are fun questions to answer, thank you! Yes, there is a blissful, internal place I go to and it's so easy to reach, but the mind will say it is complicated. There is a still quiet place inside everyone. It is where creativity and original thought really come from in my experience. It is simple to get there. Here is the trick: "don't believe your thoughts." Just have a thought. Observe that thought. Have space between you and that thought. Inquire into that thought. Realize that the mind is always thinking, and when you believe every thought, you will have no space. It is noisy up there in your mind. I sometimes say:

"All of these thoughts in my head. None of them are mine."

It's almost like a visual – a stream of thoughts going by me appears. They are of course my thoughts, but there is space there. I'm not attached to any of them, and I don't believe any of them. There is space where I can inquire into the validity of any of them. There is just for me. Being. No thought. Just observing. What happens after a while of this is a state of absolute bliss. I no longer feel like "Sarah Negahdari." Me – separate from you. From that tree a knowingness of being somehow one with everything happens, and it feels very blissful. Very connected to everything, and everything is good. I could die and I could just turn into dirt that could be the dirt for new grass and that is just absolutely divine because it is part of this oneness of everything. And it would be now whenever that is so it IS. That is truly how it feels. Try it. I would like to know about your experience. Maybe you will have a new insight different from mine. That would be so great!

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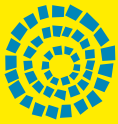


LE SOIR



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Barcelona: URBAN HABITAT



“Barcelona will be a self-sustainable, hyper-connected, zero emissions metropolis in 14 years”

Antoni Vives, Deputy Mayor for Urban Habitat, City of Barcelona.

Hot in summer, cool in winter – stylish, alternative, fresh and avant-garde year-round – Barcelona is reaffirming its architectural legacy and contemporary place at the forefront of modern urban habitats. Here are some glimpses into what the capital of Catalonia is doing in the fields of public transport with “Bicing” routes and hybrid buses, plus lighter and more efficient buildings, as well as peripheral projects, like wind farms in Tarragona and parking lots overlooking the countryside. And Acciona has built the first zero emissions racing sailboat – the ‘first’ in a long time since boats used to rely only on wind and water energy to sail...



Bicing lend-and-return station. Courtesy: Municipality of Barcelona

Public Transport

Barcelona's public urban transport system includes a community bicycle program called “Bicing”, hybrid buses, electric vehicles, and a small fleet of 120 electric scooters.

The **Bicing** company has a network of lend-and-return stations around the city; most stations are next to public transport stops or public parking **to facilitate and promote intermodality**.

A Bicing pass costs 27 Euros a year. Not bad at all compared to the MobecPoint and Going Green electric scooters that cost 29 Euros for half a day.

The classic red-framed bicycles with white fenders are very popular, particularly for going downhill. Bicing then has to collect the bikes in trucks and bring them back up the hills. This extra costs means the municipality is losing about half its investment and may increase fares next year.

Transports Metropolitans de Barcelona (TMB) is coming out with 80 hybrid vehicles (diesel-electric). 33 percent of the bus fleet is powered by natural gas and over 500 vehicles are having filters for particulate matter and NOx installed. These measures reduce exhaust and noise pollution, and means that by the end of 2012 TMB will have **one of the cleanest public transport fleets in Europe**.



Electric scooter charging point. Courtesy: Municipality of Barcelona

LIVE Barcelona – Logistics for the Implementation of the Electric Vehicle (LIVE) – is an open public-private platform that promotes the use of electric vehicles in the city. The project aims to make Barcelona a reference for electric mobility innovation around the world. The Government of Catalonia, Barcelona City Council, the Spanish Government, SEAT, ENDESA and Siemens all endorse the LIVE Barcelona project. **There are already over 250 charging stations around the city;** the goal is for every citizen to have a charging dock within 5 minutes of home.

The **first Fast Charge Station for electric vehicles installed in Spain** is on Carrer Lope de Vega, 125, and is operated by Endesa Cepsa. With the commercialization of electric vehicles in 2012, such charging points will be increasingly common. Winner of the 100% electric car of the year in 2011, the **Nissan LEAF**, can be charged at such a station with an empty battery to 80% potential in less than half-an-hour and can travel 175 kilometers with that energy. Maybe not as quick a fix as gallons of gasoline, but this will **reduce carbon emissions and noise pollution in cities.**

Urban Areas

Barcelona is located between rivers to the north and south, and between the Mediterranean Sea to the east and hills to the west. These hills provide panoramic views of the sea but also, much like Beirut, keep the water condensation from escaping. This creates more humidity and traps exhaust in a band of smog above the city. Rain is therefore always welcome, preferably at night, to help clean the streets and freshen the air. It rained while *Revolve Magazine* was at the **IHT Global Clean Energy Forum** at the end of October – and Barcelona was beautiful!

Barcelona has an incredible architectural legacy: from **Gaudi** and his **Sagrada Familia** (still under construction... but finally open to the public) to **Carles Buigas** and his **Magic Fountain** built for Expo 1929 at the foot of Montjuic hill where tourists ascend the steps to the National Art Museum; to the geometric grid of the city streets with rounded corners and inner courtyards. Embedded within the fabric of Barcelona, this legacy must inspire today's generation of architects who are **breaking new ground with efficient building material and structures.**

In the last decade, the **Innovation District**, called **22@Barcelona**, transformed 200 hectares of run-down industrial land into a vibrant hub of architectural creativity. 22@Barcelona comprises different cluster areas for Media, Information and Communication Technologies (ICT), Medical Technologies (MedTech), Design and Energy. The ICT cluster includes numerous examples of 'green architecture' – the most innovative and original green buildings are **Media-TIC** and the **AGBAR Tower**.

Green Buildings

Media-TIC is considered an example of green architecture because it is actually a lime color – at nighttime the fluorescent reflection of the metal structure is caused by the bio-luminescent paint material from jelly-fish – and because this edifice was built very efficiently:

“Our generation of architects will be recognized for bringing knowledge to society through more efficient buildings.” - Enric Ruiz-Geli



Façade of the Media-TIC building. Courtesy: Cloud9.



MEDIA-TIC TARGETS ACHIEVE:

1. 20% CO2 REDUCTION DUE TO THE USE OF DISTRICT COOLING CLEAN ENERGY.
2. 10% CO2 REDUCTION DUE TO THE PHOTOVOLTAIC ROOF.
3. 55% CO2 REDUCTION DUE TO THE DYNAMIC ETFE SUN FILTER.
4. 10% CO2 REDUCTION DUE TO ENERGY EFFICIENCY RELATED TO SMART SENSORS.

TOTAL: ALMOST A NET ZERO BUILDING WITH 95% CO2 REDUCTION.

The building was conceived by the Cloud-9 architect's office, led by **Enric Ruiz-Geli**, who explained to *Revolve* that **the structure supports “hanging floors”**: the building has 4 main trusses from which the different floors hang by tensiles. Less material was used during construction which means that the building also weighs less.

This reduces expenses since **65% less cement was used**. Then, besides the generic PV-rooftops, becoming increasingly common now, the Media-TIC building has this futuristic plastic coating of inflatable bubbles that regulate light and temperature.

These translucent plastic shields are **made of ETFE (Ethylene Tetrafluor Ethylene)** that was recently approved as a construction material and itself a Spanish innovation. The mechanism regulates temperature and reduces the use of air-conditioning and carbon emissions.

ETFE is a Teflon-based polymer, very light but highly resistant. The 2 prototypes used are ETFE cushions – for the south façade – and ETFE fog – for the west façade – both of which help regulate the intensity of sunbeams heat inside the building.

In the Mediterranean region where air-conditioning comprises 80% of energy consumed, this building could be a prototype of how to combat climate change in cities. **In the last 230 years, last summer was the hottest**, according the Ruiz-Geli, and Media-TIC spent nothing on cooling.

In Taipei, Taiwan, a Media-TIC-style building has already been commissioned to replicate the energy efficient mechanisms and lighter structure. Building will begin in 2012 and the tower, rather than cube as in Barcelona, should be finished by 2014.

Forum Area and Solar Photovoltaic Plant

The architects **José Antonio Martínez Lapena** and **Elias Torres Tur** designed the Forum Esplanade which is the central plaza to the new suburban cultural center that is located on the coast next to what has been transformed into a **combined cycle plant and the new Besos waste treatment plant**. Waste water is treated here and recycled into the city system, used by the Innovation District in particular that is closest to this more marginal area of Barcelona.

The transformation of this part of the city includes a massive 14 hectares with a **Forum Building** and a **Convention Center (CCIB)** that host indoor and open-air cultural activities, as well as a solar photovoltaic plant also inaugurated in 2004 with the Universal Forum of Cultures in Barcelona at the entrance of the new Marina. The **4.500 m²** pergola is mounted on four concrete pillars and provides both shade and energy, **producing 1.100 kW peak**.



Solar photovoltaic plant provides energy to the city.
Courtesy: Municipality of Barcelona.



AGBAR Tower (center-right), City of Barcelona, October 2011. Source: Revolve.

AGBAR Tower is also fascinating due to its **double skin**. Designed by French architect **Jean Nouvel** and built in 2005, the tower is 142 meters high with 31 floors. The 'double skin' refers to the inner concrete wall with openings and coated with insulating material, and the outer steel frame and glass slats oriented to minimize solar heat on the façade that is illuminated by 4,200 LED luminous devices. The opening and closing of the glass shutters on the façade is regulated by temperature sensors on the outside of the AGBAR Tower which helps **reduce energy consumption and air conditioning**.

Peripheral Projects

Metropolitan Architecture Projects

Within the broader Metropolitan Area of Barcelona, one architectural firm – **B01 Arquitectes** – stood out for their modesty, innovation and environmental-awareness.



Theater of Sant Andreu de la Barca. Courtesy: B01 Arquitectes.

The renovated **Theater of Sant Andreu de la Barca** looks onto the new Garcia Lorca Square. The pergola covering the entrance from the square is composed of photovoltaic panels, signaling a commitment to sustainability. The theater has a capacity of 423 people for large showings and includes a café plus an open-air theater. This is **bound to become a place to meet**.

“The common thread of our work is to advance sustainability while raising awareness through a vision on the environment.”
Sander Laudy – Architect at B01

The **Technological Center of Leitat** is unique because the parking lot is on the roof which avoids unnecessary excavation in the mountain. In response to complaints of the hot Spanish sun baking employees’ cars during the day, swaying photovoltaic sails will be set up to provide shade – the energy captured helps power the building that is **surrounded by natural vegetation**.



Technological Center of Leitat. Courtesy: B01 Arquitectes.



The beach of El Prat de Llobregat, south of Barcelona. Courtesy: B01 Arquitectes.

Just south of Barcelona, in the town of **El Prat de Llobregat**, B01 was asked what to do with the run-down maritime look-out (Semafor) and police barracks (Carrabiners). They opted to attract those **in search of some tranquility**. The beach is protected nesting territory for birds, but you can admire the sea and sand from an FSC Kumaru wood walkway that loops in and out of the empty building.

To learn more about their projects in Barcelona and beyond, visit: www.b01arquitectes.com



The marina of Barcelona from the Hotel Arts, October 2011. Source: Revolve.

Catalonia is going for offshore wind

The southern Catalan province of Tarragona – in the Terres de l'Ebre – boasts one of the largest (and highest) wind farms in Spain. With a capacity to generate 66 Gigawatts (GW) of power and around €5.5 million per year for the region of Catalonia under regular wind conditions, the farm comprises **15 wind turbines** built by the Spanish company Gamesa.

Now construction is planned for around **10 fixed and floating off-shore wind turbines** some 18 kilometers off the coast of Tarragona. **Project Zefir**, consists of two phases:

	Phase I	Phase II
Water depth	35-40 m	~ 100 m
Distance from coast	3.5 km	~20 km
Number of turbines	2-4	6-8
Power installed	10-20 MW	50 MW
Type of foundation	Bottom-fixed	Floating
Installation dates	2012-2013	2014-2015

Offshore wind energy is more constant therefore wind turbines can be shorter with the same or greater return of power produced. However, offshore farms are more expensive to install and energy needs to be brought back to land via cables set in the sea bed to avoid fishing drags.



Terres de l'Ebre windfarm in Tarragona, Catalonia.

Respira Aspira!

Respira Aspira is a campaign launched in March 2011 to introduce more efficient mobility to make Spanish cities more sustainable. The campaign targets reducing urban traffic by making more streets only available to pedestrians as well as implementing stricter speed limits to protect children and elders. **Respira Aspira** essentially encourages a general move towards a less congested and more pleasant urban habitat for citizens to enjoy better air quality and cleaner mobility.

Respira Aspira brings together diverse groups in society interested in improving the quality of life in cities, which included the scientific and medical community, business and civil groups involved in promoting air quality, road safety, green mobility, welfare for children, elderly, disabled and citizens at large. Recently the group published 100 Good Reasons, for reducing urban traffic and its negative impacts and they are now planning to link with other groups to start a European wide campaign.



Learn more here and join the conspiracy:
www.respiraaspira.org

respiraaspira.org
Ciudades saludables

Around the World

Acciona's 100% eco-friendly boat sets off from Barcelona in 2012 to participate in the renowned Vendée Globe. The skipper chosen for Acciona's boat, Javier Sansó, will go solo for 43.000 kilometers around the world during an estimated three months. The boat relies entirely on water, wind and sun to power its trajectory – no gasoline, no pollution; only the elements of Nature – just as it was before, except that now, everything is faster and more teched-up.



Equipped with solar panels to capture energy from the sun, as well as hydro-propellers that capture energy from the water, the batteries required for the electric motor and for telecom material (GPS, radio, computer) will be constantly charged – plus two little wind turbines in the stern of the boat. Acciona's boat was christened at the Marina of Barcelona during the 2011 Global Clean Energy Forum organized by the *International Herald Tribune*. (Images: courtesy of Acciona)





• Coach roof 'Delta' design inspired by stealth aircraft to maximise strength with less weight and drag.



• Hydrogen fuel cell to provide backup power when not possible with the other renewable energy systems.



• Two wind generators of 350W output each.

• Two hydrogenerators with an output of 400 W each.



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SPECIFICATIONS:

- Length: 18 metres
- Beam: 5,90 metres
- Draft: 4,5 metres
- Displacement: 9 tonnes
- Sail Area: 600 m2



• Semi-flexible solar panels integrated into the gunwale. Panels along back of boat rotate to catch the sun at all angles.



• Carbon fibre standing rigging, mast and boom. Reducing weight from the rig and sails increases the performance of the yacht.

• Deck designed to work as an integrated structural element to minimise reinforcements. All steps are taken to reduce weight, but maximise strength.

• Battery bank store electricity generated from solar panels, wind generators and hydrogenerators for use during sailing.



HYDRODYNAMICS

- Design adapted to maximise output of renewable energy systems.
- Hull built from carbon fibre and other state of the art composite materials after intensive fluid dynamic analysis and scaled tank-testing.

21ST CENTURY CONFLICTS

Remnants of War

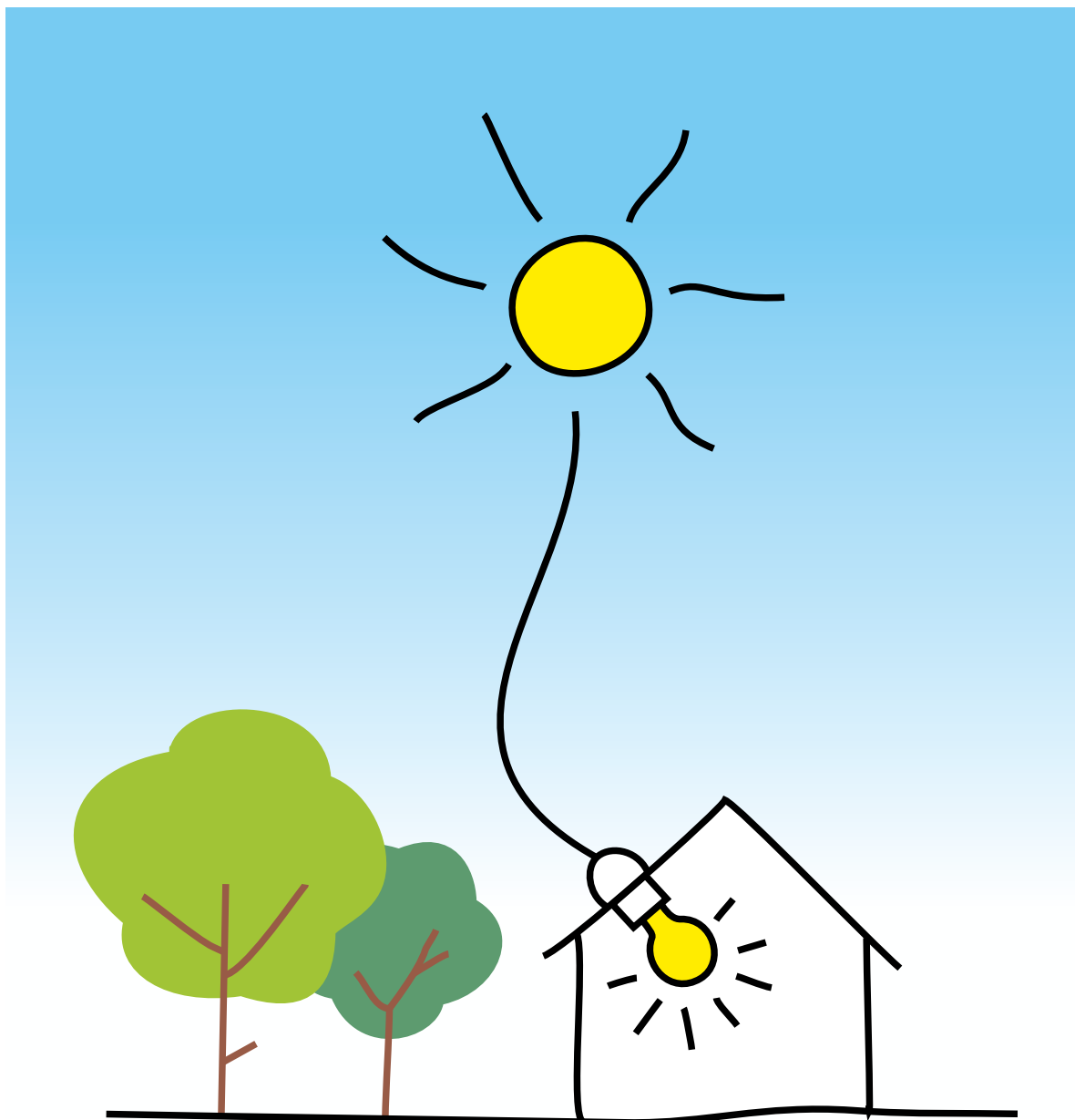
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