COMMON SKIES DIVIDED HORIZONS: AVIATION, CLASS AND MODERNITY IN EARLY TWENTIETH CENTURY EGYPT

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Introduction:

One day in 1929, at the age of thirty, a bored employee at Bank Misr named Muhammad Sidqi decided to replace his wooden office chair with a posh leather seat in an airplane cockpit. Resigning his position, he enrolled in a German aviation school. A few months later, in December 1929, he purchased a modest monoplane with a 45-hp. engine and an overall weight of less than 250kg. With the enthusiastic cooperation of the Egyptian authorities, on December 15th he left from Berlin, and, via Dresden, Prague, Vienna, Venice and Malta, made his way to Libya. With him in the cockpit was a small crocodile that was presented to him in Berlin as a gift for the Cairo Zoological Gardens.[1] In January 26th, 1930, more than a month after taking off from Berlin, Sidqi was scheduled to land in both Alexandria and Cairo.[2]

On that day, while Sidqi was still *en route*, a crowd of several thousand gathered at the airstrip of Heliopolis Cairo to welcome the hero. For a rare moment, a heterogeneous coalition of political and social elements was united in tense anticipation. The aerodrome, as airports were once called, was packed: The Prime Minister and his cabinet, the German ambassador to Egypt, eminent financiers and bankers and an impressive gallery of journalists, doctors, engineers, lawyers, politicians, teachers, workers, students and various women's organizations, were all there. Chairs were scarce. Blocked by the police, several thousand students and teenagers crowded the entrances to the aerodrome. After hours of nervous anticipation, at about fifteen past three in the afternoon, the crowd spotted a small dot in the sky. Immediately, the spectators broke down the gates, toppled police barriers and swarmed the airstrip. The police were helpless. Sidqi circled the aerodrome for a salute and the crowd shouted "Bravo." The instant the airplane touched the ground, the cheering crowd kidnapped Sidqi, and, carrying him on their shoulders, deposited him in a car and drove him triumphantly through the streets of Cairo. Over the next few days poets poured out lines of admiration while the headlines of the British-oriented daily, the *Egyptian Gazette*, read: "Mobbed by Delirious Crowds" and "Egyptian Airman's Ordeal."[3] Not a word was written on the fate of the small crocodile that had bravely accompanied Sidqi on his perilous journey back home.

More than the train, the car and the telephone, the airplane represented a superior mastery of how nature works. No other machine drew so impressively on advances in mathematics, physics, instrumentation, engineering and cartography in order to defy the forces of nature and subdue them to the human will. Sidqi's perilous journey home through severe weather and challenging terrain

proved that the modern Egyptian too could defy these forces and persevere.[4] As the crowds waited hours on end for his much-anticipated landing, they were pushed to think of geographical space in terms of time. Most likely this was the first occasion that such a sizable crowd of Egyptians stood still for hours with their faces toward the heavens perhaps causing them to ponder the changing relationship between hitherto two entirely separate natural spheres. By physically flying from the heart of Europe to Egypt, the hub of the Arab East and the "key to Africa," Sidqi made an invaluable cultural statement about the unity of geography and the essential equality of modern/modernizing cultures. The urban classes, and especially the "delirious crowds" of the middle class which "kidnapped" Sidqi upon his landing, came to think and talk of him as a transcendental figure.[5] Indeed, it was not Sidqi the person as much as Sidqi the phenomenon, for his flight marked a high point in an ongoing technological craze—particularly evident in a fascination with speed—that gripped early twentieth-century Egypt. However, as time went by and even women began "taking the stick into their hands," civil aviation in Egypt shifted to more mundane and earthly concerns. In fact, much of the drama occurred not in the air but on the ground and under it, in the subterranean trenches of social warfare as it was there that the struggle over the appropriation of this new technology took place.

Because the airplane, arguably the archetypal form of "high technology", has no organic connection to the technological and scientific history of the Arab East, it is necessary to investigate the process of technological translation from "Europe" to pre-revolutionary Egypt, a semi-colonized country of multiple political, social and cultural cleavages. By examining who brought the airplane to Egypt and how it was "consumed" locally, we substantiate our understanding of "technological translation" and map the outlines of the non-Western aeronautical tradition. As historian of science David Arnold put it, speaking of South-East Asia, "A history of science in India must also be a history of India, not merely a history of the projection of Western science onto India."[6]

With this in mind, this article hopes to accomplish two things. First, on the strictly empirical level, it charts for the first time the contours of Egypt's experience with the airplane from the early twentieth century to the 1940s. Second, as the primary evidence used here suggests, the "translation" and consumption of "high technology" pushed many literate Egyptians to wonder about previously unquestionable notions of time, space, speed, the physical capacity of the human body and even collective cultural attitudes toward gender, heroism, leadership and political community. Evaluating parts of this process from a social perspective, I argue that class divisions played a major role in the acculturation of the airplane. Thus, though initially both the upper and the middle classes, or *effendiyya*,[7] shared the cultural optimism associated with aviation and understood it against the backdrop of a unitary nationalistic frame, the upper class quickly monopolized this field and shaped Egypt's aeronautical culture to fit its own image, namely as an exclusive, cosmopolitan and universal practice. In reaction, the *effendiyya* of the late 1930s, with its strong representation in state bureaucracy, began to "Egyptianize" aviation, that is, to purge local aviation of foreign elements and to forge an authentic aeronautical culture which emphasized equal participation and accessibility to all classes.

Before Flying

From the beginning of British occupation in 1882, the Victorians who ruled Egypt wanted more railway mileage, more telegraph wiring, and more steam engines. Their language was saturated with mechanical metaphors. Indeed, in a few cramped paragraphs Lord Cromer, describing the desired "machinery of government" in Egypt, wrote of safety valves, oiling, steam, rust and centrifugal forces.[8] However, well before the forced arrival of the British, Egypt had already excelled in the classical nineteenth-century symbols of technological progress: railways, telegraph, and an efficient postal system. Under Khedive Ismail (1863–1879) the dominant view was that the machine is a civilizing force and that an influx of technology could dramatically elevate living conditions and release Egyptians of their poverty. Embodied in the construction of the Suez Canal, Ismail's great bid for technological advancement and civilization was famously articulated in his statement "Egypt is no longer part of Africa; it has become part of Europe."[9]

On the ground, a grid of modern infrastructure covered the land, and, in addition to the first Cairo tramway, a modern railway corridor ran parallel to the Nile all the way down into neighboring Sudan.[10] Soon afterwards, the first cars arrived and an embryonic culture of motoring gradually emerged.[11] With the introduction of electricity, by the early twentieth century, Egypt had already experienced most of the essential features of nineteenth-century industrial order: "The substitution of metal for wood construction, mechanized motive power, vastly enlarged geographical scale, speed, rationality, impersonality and the unprecedented emphasis on precise timing."[12] Conceptually, 'Ilm, the Arabic term for knowledge, came also to encompass the Western notion of science and other notional changes followed suit.

This new modern condition was shaped by foreign and local Europeanized elites, who subscribed to ideas about the universality of science and began thinking of Egypt's future in positivist terms: as a framework for social evolution and mechanized progress.[13] The pioneers of Egyptian aviation came from this social circle. In February 1910 they hosted the Great Week of Aviation, an International flying competition, at Heliopolis outside Cairo, an event that was primarily a local elitist episode sponsored by Prince Fuad, rather than national celebration associated with state building and progress.[14] Though Egypt was a member of the international Association of Aviation, there were no local pilots and, as late as the 1920s, aviation continued to be an experience that exclusively came from the outside world: War making,[15] western heroes who insisted on flying to the Pyramids (to have their picture taken), compulsive record breakers en route to the Far East,[16] and a tragic Ottoman display of airpower.[17] In cooperation with the German Air Force, during World War I the Ottomans operated 450 airplanes in various locations in the Middle East.[18] At one point, in order to embarrass the British, the Germans dropped over their lines a photomontage picture of a German fighter airplane cruising above the Pyramids.[19] Later in the war, aerial action produced tragic results when several German planes bombarded Cairo, dropping 9 bombs that killed 14 people and wounded 25 on one occasion[20] and several civilians on another.[21]
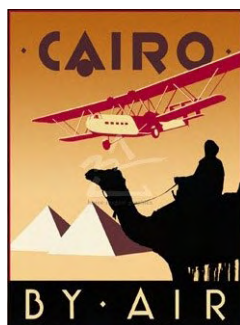
Figure 1

Figure 2

In this context Prince 'Abbas Halim, great-grandson of the founder of the Muhammad 'Ali dynasty (1805–1952), joined the German Air Force and was the first Egyptian combat pilot.[22] Shaped by the aerial heroism of World War I, he became the local high priest of youth, speed and danger and the first Egyptian to embody the modern myth of the ace.[23] Bit by bit, aviation introduced itself to Egyptians, creating fertile ground for a local aviation movement to take off.

The Age of Speed

The Egyptian aviation movement was born against the backdrop of the anti-British 1919 nationalist revolution. This first communal experience with ide-ologically guided mass violence provided Egyptian society with a sense of pur-pose and direction. This movement was charismatically headed by the middle class *Wafd* party, which sought to transform Egypt from a former province of the Ottoman Empire and a British protectorate into an independent and mod-ern nation state. For almost a decade, the resourceful "spirit of 1919" united the various classes (the big landowners, the urban Europeanized Egyptians, the *haute*

bourgeoisie, the middle class, the burgeoning working class, the small landowners and perhaps even the landless peasants) in their drive to establish new economic, commercial, agrarian, social and political institutions such as a national bank and a parliamentary system. At least in the big urban centers, this unity of action was successful in bringing together social elements that otherwise shared little in terms of their cultural orientation and economic base. This commitment to a new social contract was brilliantly captured by Tawfiq al-Hakim's definitive novel *Awdat al-ruh* (The Return of the Spirit). Against the backdrop of this unity and boundless optimism, urban activists began to propagate literary airmindedness which was soon translated into a stern nationalist demand for the British to let Egyptians fly.

Like Egypt's crippled independence of 1923, which relegated it to a semicolonial status, aviation too was seen as not yet within its ability. In fact even before they were confronted with Egyptian aeronautical demands, the British attitude toward indigenous aviation was established when the training of two non-Egyptian Arab pilots from the Hijazi army of the Sherif Husayn was abruptly cut short. Commenting on this issue, Mark Sykes, former signatory of the Sykes-Picot agreement, explained: "What we wanted was not flying officers, but men with some knowledge of flying, organization, machinery, etc."[24] By the early 1920s, British reluctance to support Egyptian flying on any level (private-public, civil-military) was in sharp opposition not only with the communal spirit of 1919 but also with a quiet, yet persistent, spatial and temporal revolution which was noticeable all over Egypt.

Beginning in the 1920s, and more so a decade later, Egypt's urban classes began to admire and celebrate the new, the speedy and the mechanical. Streamlined, art deco design was a standard feature of this era and Cairo's and Alexandria's well-to-do classes began to fashion their houses along new, aerodynamic lines.[25] More people experienced speed and were accustomed to a new sense of distance as automobiles, trains and trams became more affordable. In 1926 Ford opened a branch in Alexandria and soon Egypt functioned as the hub of Ford's operation in the entire Mediterranean and much of Africa. With huge profits to be made, General Motors, Chrysler, Fiat of Italy and Mercedes-Benz of Germany also joined the race.[26]

The spread of the telephone and the wireless telegraph created simultaneity of spatial experience, giving the illusion that someone could be in two places at once. All of these developments came to be known in Egypt as the "age of speed" (*'Asr al-sur'a*). This period succeeded earlier phases of technological development, namely, "the age of steam and railway" (last quarter of the nineteenth century) and "the age of electricity" (early twentieth century).[27] Of course, it was not merely about speed *per se* but about the relationship between the natural world and technology in the context of rapid modernization.

In an era in which "dramas of speed"[28] occurred on a daily basis, there was growing demand for elaborate scientific explanations of phenomena such as speed, time, altitude, temperature and the physical capacity of human beings. Indeed, common popular concerns were: What is the fastest airplane and what is the world record for speed?[29] What is the speed of the wind, is it faster than the airplane?[30] Are birds faster than airplanes?[31] What is the speed of light?[32] How cold is it in the sky, what is the sky's structure, and how high can men fly?[33] Is

speed harmful for the human nerve system and what limitations does it impose on the human body?[34] What is the history and future of mechanical speed?[35] How far is it possible to fly, and what is the history of [measuring] time?[36]

Though some of these questions might today appear a bit naïve, they were a critical part of the construction of a new corpus of modern meaning. These questions and their answers provided systems of understanding for the simultaneity and synchronicity that characterized this era. Never before had so many literate Egyptians approached reality from this angle. Cognizant of this fact, the eminent Egyptian thinker Taha Husayn expected the Arabic language to renew itself in accordance with the demands of this new age of speed.[37] Indeed, new words, many derived from the word time (*zaman*) like *mutazamin* (simultaneous) and *tazamuni* (synchronic) are of fairly recent origin and could not be found even in new dictionaries in the 1920s.[38] Other terms had not yet been coined or had not yet won currency.

Besides the endless stream of newspapers and magazine articles on aviation, due to the operations of Ford and the gradual Americanization of the image of speed, the radio and the cinema figured strongly as agents of speed.[39] Thus, besides already famous films that glorified combat aviation, such as *Hell's Angels*, in 1933, *Air Hostesses* hit the screen of Cairo's Fouad Cinema.[40] A year later, Hollywood adapted Antoine De Saint-Exupéry's *Vol de nuit* to the screen. Casting the inexperienced but promising Clark Gable as a heroic pilot, *Night Flight* (*Tayaran layli*) played in Cairo's Cinema Royal.[41] The glory and heroism of flight were celebrated in grand style.

Alongside much "propeller talk," there were also actual aviation events. The British Royal Air Force (RAF) held an annual aeronautical festival in Cairo, which included exciting aerobatics. On April 10th 1931, the Graf Zeppelin visited Cairo and thousands went to the streets to watch the dirigible.[42] Over the years, other airships and passing aviators occasionally appeared on Cairo's skyline, especially above the Pyramids. With each of these exciting visits, a renewed wave of interest would rise, and updated knowledge about the "state of flying" in the world would circulate. Visiting aviators were frequently interviewed and promised Egyptians that due to their country's central geographical location, its future as a hub of world aviation was assured.[43] Indeed, some Egyptians were ready to translate the notional progress of the 1920s into action.

The Emergence of Local Flying

Already in 1925 there was a pervasive sense that in terms of aviation Egypt was lagging behind. One disappointed Parliament Member demanded swift government action.[44] As precious time to "catch up" seemed to be quickly passing, resourceful and rich members of the upper class began to take the initiative. The chairman of the famous daily *al-Ahram*, Gabriel Taqla, engaged in the alternative sport of gliding.[45] Another person, former Ministry of Foreign Affairs Hasan Anis Pasha, also approached aviation independently.[46] Leaving government service in 1924, he studied flying in Germany and flew as far as Crete but the British, which controlled all the airports, did not allow him to proceed to Egypt.[47] In late 1929, about the same time of Sidqi's flight, the flamboyant geographer and the King's first secretary Ahmad Muhammad Hasnin Bek enrolled in

a private aviation school in Heston, England. Upon completing a mere twenty hours of flying Hasnin purchased a light Gipsy Moth airplane and began preparing for an aerial journey to Egypt. He flew as far as south Italy where his airplane was badly damaged in a crash. In mid January 1930, while waiting for a new aircraft, the enraged King Fuad, who had just learned about Hasnin's unauthorized journey, ordered him to return home immediately. A few days later, the anonymous Sidqi landed in Cairo.[48] In the same year, Prince 'Abbas Halim established the *Royal Aero-Club* and Hasan Anis was nominated its Vice President.[49]

As public pressure mounted, and members of the upper class left for training in Germany (the main supplier of "high technology" to the Ottomans all the way to their 1919 collapse), the British began to realize that their policy was counterproductive, for it pushed Egyptians to adopt non-British technological cultures and machinery.[50] A case in point for the futility of British policy was the national hero Sidqi. While being a student of commerce in Berlin Sidqi was enchanted with German modernity. Upon graduation, he married a German girl of an established Berlin family and returned home for a position in the prestigious Bank Misr. According to his own account, boredom at the workplace pushed him to realize his life-long dream of flying. After a long process of deliberation he chose a German aviation school rather than a British one. He had no apparent sponsors but he was obviously well connected. Celebrating his success, the founder of Bank Misr, Tal'at Harb, picked up the bill retroactively.[51]

Since this symbolic landing, under the enthusiastic Minister of Transportation, Mahmud Fahmi al-Nuqrashi, things began to move more rapidly.[52] Later, in March and April 1931 this change in atmosphere brought Ahmad Salim, manager of the Egyptian Cinematographic industry, and a colleague to challenge the official order and land in Egypt without asking for any permission.[53] They were not punished.

Henceforth, fearing that it might compromise its aeronautical interests in the region, the British worked hard to assure that their machinery and culture of aviation would reign supreme and thus, rather than suppress the local movement, they opted to contain it. Though in 1932 they finally helped establish a small Egyptian Air Force, their most decisive move in this regard was the initiative to set up a joint Anglo-Egyptian civil aviation company.[54] The natural candidate to lead this joint venture on the Egyptian side was Tal'at Harb's nationalist Misr Group. This local holding company, which also owned Bank Misr, had viable control over much of the burgeoning Egyptian commercial and industrial sector. Despite its famously misleading anti-foreign nationalist rhetoric, the Misr Group was a classic upper class venture which willingly collaborated with cosmopolitan capital. And thus, in cooperation with the Heston based Airwork Ltd. and with the blessing of both British and Egyptian governments, in June 1931 the two groups established Misr Airwork (also known as MisrAir).[55]

A year later MisrAir won a thirty year concession from the Egyptian government as domestic and regional carrier. The concession stipulated that Misr Airwork would build airports, repair shops and train local pilots. Among its many missions it was also commissioned to take land surveys and carry mail. At this point, under British tutelage the company's expensive al-Maza aviation school in Cairo had already trained around 200 leisured aviators and a host of mechanics. In response to more demand, a second flying school was opened also in

Alexandria.[56] Somewhat against British expectations Misr Airwork ambitiously expanded and soon had scheduled flights to Saudi Arabia, Iraq, Syria, Palestine, Cyprus and even planned to offer service to Iran and Greece as well. Eventually, finding itself in dire financial straits, the company played the nationalist card. By capitalizing on its status as the only local, Egyptian company, it asked the state to consider it a subsidized "national airline."[57]

However, more than any imminent financial problems, for the middle classes, the most distressing problem of the Egyptian civil aviation movement was social. Indeed, when Fuad University dispatched students' delegations to Italy for "technological tourism" where, among other establishments, they also visited aircraft factories, an astute Italian observer noted that all of the participants were the sons of Egypt's leading political and economic elite.[58]

The Divided Social Bases of the "Age of Speed"

Based on the enthusiastic participation of classic middle class periodicals such as *al-Hilal* and *al-Muqtataf* in propagating air-mindedness, it seems that nationalists of all classes were embracing the new era in anticipation of a full-fledged local aviation movement as a metaphor for independence, self-reliance and control of one's fate. For a few years, this unifying sense of nationalism and technology went hand in hand. Thus, though pilot Sidqi most likely came from privileged background, he was carried in Cairo's streets on the shoulders of young *effendis*. Indeed, Sidqi was first and foremost, an Egyptian national hero.

However, following the lift of the British ban, the establishment of the *Royal Aero-Club* and Misr Airwork' flying schools, participation was organized along the following divisive lines: the upper class purchased and piloted the airplanes, and the middle class *effendiyya*, contributed to literary magazines and stormed the police barriers to congratulate the landing heroes. Thus, while the upper class actually practiced aviation, promoted it politically and established the necessary infrastructure, middle class participation was passive. And so, the divided social bases of the "Age of Speed" movement began to appear, and the unifying wind of 1919 began blowing in different directions. This process warrants additional exploration because it shaped the emerging culture of aviation and was part of the more fateful debate about who benefits from modernization.

The Egyptian upper class was comprised of the old landed aristocracy of Ottoman background, and the *haute bourgeoisie*, which included Italian, British, French, Greek, and a solid Europeanized tier of wealthy Arab Egyptians. From a historical perspective, many of them were newcomers who had arrived in Egypt only during the nineteenth-century and were granted lands in return for their services. Others came with the British following the 1882 occupation and the first wave of globalization in the region. Though they were residents of Egypt their homeland was the globalized colonial world which rested far beyond Egypt's borders proper. These modernists *sans frontières* of relative wealth and abundance of connections were metropolitan, cosmopolitan, secular and polyglot in nature. Thus, though they came from varied ethnic and religious backgrounds, already by World War I they were united by their wealth, aristocratic descent and kinship, their modern education, but above all, by their behavior and lifestyle.[59] Especially concerning the subject of lifestyle, the upper class de-

veloped an aversion toward the aspiring Arabic-speaking *nouveau riche* middle class, which lacked what it considered to be refined cultural skills.

In all aspects of public and private life, the upper class was incorporated into European and British colonial culture. This process was mostly visible in sports and social clubs where the British forged and maintained their colonial cultural code. By 1937 there were twenty-six clubs that supported golf, polo, horse-riding, shooting, archery, hunting, yacht sailing, swimming, car racing, athletics, tennis and a host of other social activities. The atmosphere in the clubs was intentionally elitist and was used to restrict rather than expand contact with other social groups. The clubs' *lingua franca* might be English, Italian or French, but only rarely Arabic. Even the Arabs did not speak Arabic. It was in such clubs that the well-to-do families could intermingle and socialize. Intermarriage, as well as business relations among club members, was quite common and many crucial political fates were informally sealed there.[60] As champions and promoters of modernity, the upper class was the first to acquire modern novelties such as motoring culture and cinema, and it used them as markers of class position and status. Up to 80 percent of club members were functionaries in the colonial apparatus.[61] The newly founded *Royal-Aero Club* of 1930 was an exciting new addition to this rich and exclusive social scene. Clearly, the conquest of the air also suited upper class aims.

The *effendiyya* as well was a relatively new class which was still undergoing a critical process of formation. The appearance of this class was a direct outcome of repeated modernization attempts that began under Muhammad Ali's dynasty (1805–1882) and continued under British colonial rule. These were the first indigenous modernized urbanites of the Middle East who struggled for equal and dignified participation in modern public life. National independence was another of their fundamental demands and the 1919 revolution was their own moment in history. The *effendiyya,* or as it was called after 1919, the *new effendiyya,* was ambivalently committed to religion and developed a close dependency on the modern secular world for the sake of its own success. Though dependent on the wealth and connections of the upper class for the realization of their goals, the post-1919 *effendiyya* was far from passive. Quite the contrary, it was the most dynamic social group and one of the most culturally active. Indeed, "it can be said that *effendis* were always in the process of becoming something else." Its members were young, educated, politically aware, overtly nationalist and, at times, rebellious.[62] Though lacking a unified political outlook and participating in a host of political parties, for the most part, the *effendiyya* of the 1920s rallied around the nationalist *Wafd* party.

An example of this group's spirit was their response to the colonial sports clubs. Largely excluded from this socio-cultural scene, which they too identified as a center of modernity, the middle class sought to create its own nationalist cultural sphere. By means of what is commonly known as the indigenous (*Ahali*) spirit, they established alternative collective enterprises, such as cultural and political magazines, private salons, social clubs, and even political movements. Between the two world wars, their most notable success was the nationalization and democratization of sports and the publishing industry.[63] Evidently, it was committed to a self-regulated public sphere.

As staunch secular modernists, many of the *effendis* sought to deepen and ex-

pand "Enlightenment", especially its scientific and technological side.[64] Inexperienced as the *effendis* were, the world economic crisis of the 1930s caught them by surprise as, for the first time, they began to experience the difficulties associated with urban modern life: alienation, unemployment, lack of socio-economic mobility, growing social gaps and even, on a more intimate level, inability to pay dowry in order to get married. With the economic difficulties of the 1930s, some disillusioned members began turning to Islamic politics and joined the recently founded Muslim Brotherhood. With time, others would be ready to experiment with authoritarianism. It is at this point that both the British and the upper-class began to refer to the *effendiyya* as "trouble makers."[65]

Though the lines which differentiated the upper and middle classes are at times difficult to discern, students of material consumption in Egypt argue that these classes had different consumption patterns with clear cultural and even ideological preferences. For instance, in the case of tobacco consumption, Relli Shechter noted that "Smoking delineated the boundaries between three social categories: "*ahl al-balad* (sons of the country), a lower urbanite stratum, *effendiyya* (the educated), a middle stratum, and *ahl al-dhawar* or *bashawiyya* (the rich and the aristocratic), an upper stratum. The lower classes smoked the *shisha,* or the water-pipe, the *effendis* smoked cigarettes and the upper class smoked cigars."[66] According to Shechter, "such metaphors gradually developed into a new *effendi* cultural (including material culture) canon, creating an *effendi* outlook that came to dominate Egyptian national culture."[67] Thus, even the marketing of cigarettes for the *effendiyya* appealed to the nationalism and patriotism that distinguished this class.

Referring to the field of aviation, Taha Husayn, the much-admired sponsor of Egyptian cultural integration with Europe, articulated a universal view that fitted the ambitions of the upper class. For him, aviation marked the triumph of reason over imagination and superstition. Until recent times, he maintained, human beings were flying only in legends, myths and, metaphorically, in philosophy. "This was in the old times when men's imagination was greater than his intelligence."[68] However, the emphasis of " . . . our age of speed" on science and technology left this old world behind.[69] Taha Husayn had no doubts as to Egypt's ability to relate to the era of reason and aviation. After all, he stated, "Weren't the forefathers of present-day Egyptians the builders of the Pyramids?"[70]

This was a classic 1920s frame of mind which naturally associated the airplane with the Pyramids as two signs of universal progress. The frequent attempts to fly to or around the Pyramids that began in 1910 illustrates the degree to which such an idea was also part of the European cultural logic. Such thinking reaffirmed the project of closing historical gaps between now and then, Egypt and Europe. Thus, a standard characteristic of early Egyptian Pharaonic nationalism was this repeated mining of the nation's past glories as a secure source for future illusions of modern greatness still to be conquered by means of modern technology. Indeed, though articulated by the upper class and tailored specifically to their cultural aspirations, until the 1930s, it served as the intellectual basis for the optimism of the "Age of Speed" as a whole.

But there was also Egypt's other past which in the 1930s pointed to the lost authenticity of the Islamic and Arab East as a source for cultural inspiration

rather than Europe. This critical shift of identity was headed by the middle class *effendiyya* which argued for the cultural "turn of the East." The *effendis* regarded such a national identity to be more patriotic than the one based on Western imperialist culture. Associating true patriotism with local culture, some readers of middle class periodicals began searching for the origins of flight and modernism in their own cultural backyards. One reader, for instance, asked the editor of *al-Muqtataf,* was it true that the Arabs of Andalus (Spain) invented aviation? An Iraqi reader asked if a certain historical Muslim figure, 'Abbas Ibn Firnas, could be considered the founder of aviation.[71] The editor responded that aviation is a modern development, charted its features, and begged the readers not to give in to apologia, fables and superstition (*hadith kharafa*).[72] However, the Eastern shift of identity was not susceptible to such polite requests. By the mid 1930s a popular Islamic/Arabic nationalism was already an articulated cultural substitution for the more culturally detached Pharaonic nationalism.

While initially, the involvement of these two classes in the consumption of aviation was somewhat similar, once airplanes actually arrived to Egypt and the first decade of Egyptian independence came to a close, the economic, social, cultural and political gaps between the middle and upper classes developed into different notions of what aviation should be about. Thus, as we shall now see, while for the upper class aviation was secular, universal, exclusive and a cosmopolitan practice, for the *effendiyya* it was about localism, patriotism and even Islamism.

Cosmopolitan Upper Class Air-Mindedness

Two closely connected institutions dominated civil aviation in Egypt before and immediately after World War II: The *Royal Aero-Club* and Misr Airwork with its privately owned aviation schools in Cairo and Alexandria. Reflecting the eclectic and pioneering style that characterized early Egyptian aviation, this civic scene was comprised of a mélange of Italian, German, British and French traditions of technology and machinery. However, the business association with the British assured that it would be a former officer in the British RAF that would oversee the training of new pilots.[73] Perhaps due to the fact that most of the early local pilots were trained abroad, and that instructors were either foreigners or originally trained in European languages, the aviation school offered training in Italian, English and German.[74] Instruction in Arabic, a language that was struggling to adapt itself to a new technological era, was offered as well but it is clear that it was relegated to marginal status.

In this expensive environment the Arabic speaking *effendiyya* could not feel welcome especially when, in order to fly at all, one needed first to be admitted as a member in the *Royal Aero-Club*. Such membership always depended on wealth and connections. Biographies of some club members illustrate the strong affiliation between club members and the private financial sector. Amin Yahya Pasha of Alexandria, for instance, was a President of the Egyptian Chamber of Commerce, Vice President of the Egyptian Produce Trading Co., President of the Alexandria Insurance Co., and an executive in Bank Misr whose owner, Tal'at Harb, also owned Misr Airwork and its flying schools. Other aviators as

well were the leaders of Egypt's flourishing private economic sector.[75] The advertisements published by the *EAR* (Egyptian Aviation Review), the organ of the *Royal Aero-Club*, also indicate that in the new age of speed, class, money and aviation were inseparable.[76] And money is precisely what the struggling middle class of the 1930s lacked. With no direct state involvement in training (initially not even in the field of regulation) it was not likely that young *effendis* would ever take off. Indeed, out of the first 74 pilots certified in Egypt between 1932 and 1934 most graduates were *haut bourgeoisie*/upper class members of foreign descent with Italian, Greek, British and French names. In the Alexandria and Port Said flying schools of pre- World War II, the ratio between foreigners and Egyptian graduates was 9:1.[77]

But air-mindedness was much more than flying, as it involved an important communal message regarding the position and role of Egypt in the family of modernized nations. Beginning in the 1920s, a barrage of articles celebrated the global intimacy and oneness of a world connected by airplanes.[78] The general mood was that a wave of global cooperation would engulf the world from the Far East to the Americas. A spirit of pioneering and boundless discovery was in the air as literate Egyptians wrote of an impending "social revolution" and of Columbus and Magellan.[79] Such global horizons fit the universalist/European aspirations of Pharaonic nationalism.

Soon, the first stories of Egyptians participating in this moment of world harmony featured in the *EAR*. Until the 1950s, this was the only aviation journal in Egypt. Feeling at one with this global togetherness, members of the *Aero-Club*, whose logo was the Pharaonic Eagle, recounted at great length their adventures in foreign countries and aviation clubs. The underlying theme was that of global camaraderie. Here is an example of a typical account of a "pleasant trip to the Golden Horn" where one pilot and his wife met "far-seeing men, of wide knowledge and culture, whom it is a real education to meet."[80] These unusual people " ... receive us very warmly and were kind enough to present a bouquet of flowers to my wife. We were overwhelmed with kindness ... " and tremendously enjoyed "The renewal of old friendships and the forging of new ones."[81] Indeed, it seemed that regardless of the direction these polyglot aviators turned their airplane's nose, they encountered wonderful, interesting, and, occasionally, even famous people. These stories poured forth in issue after issue of the journal.[82]

Upper class hedonism was common as well. Many friends were now within reach, and some aviators simply took off for a two-day picnic in Palestine.[83] In such a "small world," where technology brought people closer, everyone was a friend of everyone else. To celebrate this new human unity, Miss Zainab and Captain Ahmad Naggi got married aboard a Misr Airwork airplane.[84] After World War II, with the express purpose of facilitating more of these worldly human encounters "The Touring Club of Egypt" was established.[85]

And thus, just as in Europe and America, local myths about the social effects of modern technology portrayed aviation as a universal network of equals that brought people together and removed barriers of language, culture, class and politics.[86] Since the economic and political power base of the upper class was socially and culturally narrow, it constantly needed to play down all economic,

ethnic, political and religious differences and invoke an inclusive vision for all. Thus, for the aristocracy, the myths of "perpetual peace" and "universal hospitality" had exciting potential as social and political survival tools. For this reason, many of the stories featured in Arabic and were designed to appeal to the wider public.

This emerging idealistic atmosphere, however, was not merely an abstract cultural construction of the few but also an economic reality of increasing global trade and tourism. Indeed, though we have no concrete economic data, European countries invested much energy in pulling Egypt into this global web of tourism and trade. Already in the late 1920s Europe's first-class airlines chose Egypt as their hub on their way to the Far East and Africa. With Egypt's central geographic position as "a bridge between worlds," it held the potential to become the hub of this entire global movement.[87] Objective scientific studies appearing in the prestigious journal of the *Royal Geographic Society* confirmed such views and administrators were encouraged to think of how to accelerate this process by removing bureaucratic barriers.[88] Both record-breaking flights, as well as the mundane daily flights from Europe to the East which passed through Egypt, demonstrated the inevitability of this vision.[89] Taha Husayn wrote that "Tomorrow or the day after we shall be the guardians of the line of communications between East and West. Our activity as an import-export center is quite important on the world economic scene."[90] Back on the continent, advertisers produced elegant art-deco travel posters, which immortalized Egypt's alleged central role by exploiting the crisp visual language of the Age of Speed.

Interestingly, the concept of a global vision whose center is Egypt has a long pedigree that stretches as far back to the 1869, when the expectation was that the newly inaugurated Suez Canal would place Egypt at the center of world economic attention and Europeanize it.[91] In the 1930s, when aviation was gradually becoming a universal reality, the legacy of Khedive Ismail immediately sprang to mind and was evoked by politicians and intellectuals alike.[92] Commenting on this legacy, Taha Husayn contended that "Ismail's statement . . . should not be regarded as some kind of boast or exaggeration, since our country has always been a part of Europe as far as intellectual and cultural life is concerned, in all its forms and branches."[93] It is precisely this universal creed that in late 1933 drove the apparatus of the *Royal Aero Club* and several state agencies to organize a full-fledged international aviation festival. Welcoming Europe's best aviators, the state issued a special series of stamps.[94]

Figure 3

Figure 4

Despite the heavy and consistent involvement of the upper class in promoting technological idealism, however, it would be simplistic to describe the spread of such ideals as a one-sided upper class conspiracy. Ismail's Egypto-centric vision has long been a standard aspect of Egyptian patriotism shared by all nationalized classes. Yet, while the social and political upheavals of the 1930s shook the cultural confidence of young middle class modernists, the Westernized aristocracy continued to cling to such myths.[95]

So profound was the upper class belief in the viability and perpetuity of world aviation, and so profound and urgent was the need to justify its close cultural, economic and political dependency on colonial Europe, that it entirely ignored the increasing number of horrendously violent events in which the airplane was involved. Even when the middle class *al-Muqtataf* warned Egyptians of the fateful shifting realities of world aviation and, more specifically, of the threat that the ruthless Italian Air Force in occupied Abyssinia posed to Egypt, the cosmopolitan vision endured.[96] Nothing, so it seems, could shake the firm belief in the truthfulness of the airplane as the great equalizer, the ultimate breaker of barriers and the facilitator of universal brotherhood, peace, prosperity and socio-economic equality.[97]

As Roel Meijer so aptly illustrated, questions of social justice and equality were precisely the issues that divided the Egyptian public before the 1952 Revolution and eventually brought down the elitist monarchic order.[98] Until that critical moment, the upper class never ceased to use the post 1919 aeronautical optimism, or at least what was left of it, in the service of its own narrow class interest. Indeed, for them, much was at stake. If the world was not going to become a multi-lingual and multi-ethnic community of equals, how could this privileged, polyglot and internationalized Egyptian upper class justify its existence?

Egyptianizing Aviation

The November 1933 funeral of two fallen Air Force pilots was the biggest gathering of an urban crowd seen in Cairo since the funeral of the legendary *Wafd* leader and middle class champion, Sa'd Zaghlul (d. 1927). In a matter of hours it also became one of the most violent demonstrations that Cairo had seen. Headed by students, the most dynamic sector of the new *effendiyya,* the official funeral was transformed into a violent pro-*Wafd* demonstration. "Long live the Wafd" and "Egypt for the Egyptians" were some of the slogans that the

crowd chanted."[99] Politically, Egypt was just emerging from a three-year period in which an ultra capitalist upper class coalition, aided by the Palace, suspended the constitution and established autocratic rule. With aviation becoming an integral part of the national psyche, young *effendiyya* rioters posed the question: on behalf of which Egypt were the young people supposed to sacrifice their lives?

On the other side of the barracks were the Palace, the British and the upper class whose main concern was tightening the mechanisms of social control. The *Egyptian Gazette* which voiced their social anxiety wrote disapprovingly: "The fruits of recent Wafdist propaganda were reaped yesterday when disgraceful scenes turned the solemn funeral procession of Egypt's two airmen . . . into a disorderly and shouting mob."[100] It was only the "gallant manner" in which British chief of local police "Lewa T. W. Russel Pasha . . . mounted upon a white horse, rode alone into a seething mob to quieten and pacify the demonstrators, that prevented scenes of outmost gravity."[101] The "mob" was contained but their concerns were not addressed.

Cognizant of this overall political context surrounding the issue of aviation, in the mid 1930s upper class leaders of the aviation movement acknowledged that the social bases of aviation were far too narrow. A proposed solution to this problem was to emulate the German gliding movement in Egypt on a mass scale.[102] Given the limited means available, this proposal drew on the post-Versailles German experience with gliding as a popular nationalist response to the flying restrictions imposed on Germany after World War I. Rhetorically, it proved that even without motors, Germans could still fly. As the German example showed, by shifting the emphasis from mere flying to the process of planning, building and fixing gliders, as well as preparing other auxiliary facilities, the main point of this movement was mass participation and emphasis on collective national values.[103] Because of the ordered and controlled nature of this movement, from an upper class Egyptian perspective, the German experience of gliding was considered a perfect solution for the *effendiyya*.

However, the proposal of such tactical solutions only underscores how the impasse of aviation augmented the anxieties of the upper class: that modernization might fail and the disappointed violent "masses" would rebel. A more systematic intellectual response to this challenge was the newly established "Society for National Renaissance." This reformist think-tank, the first one in modern Egyptian history, believed in the twin process of reforming and deepening the parliamentary political system on the one hand, and, on the other, the social integration of new sections of the population into the modern nation.[104] And thus, as the 1930s drew to a close and a World War was approaching, the sociopolitical predicament of the *effendiyya* became "a national issue" and a pressing problem to be reckoned with.

With precisely the same concerns in mind the state began pushing for a complete overhauling of civil aviation in a fashion that would reflect the modern ambitions of the *effendiyya*. After more than a decade of tedious negotiations, in 1936 the *Wafd* party finally signed the historic Anglo-Egyptian agreement which significantly minimized British control over the development of Egyptian statehood and secured for Egypt a greater measure of political, economic and diplomatic independence. The direct outcome of this agreement was a gradual state

tendency to "Egyptianize" as many public institutions as possible at the expense of the so-called "foreigners" (of Italian, French, British and Greek nationalities). Known in Arabic as *Tamsir,* this unwritten, yet forceful, policy manifested itself in the systematic incorporation of the nationalized middle class into the bureaucracy. Egyptianization and ethnic local patriotism were made synonymous and were juxtaposed against the cosmopolitanism and poly-ethnicity of the upper class. Whether it was in the various government ministers, in ranks of the army or among the faculty of Fuad University, by the late 1930s, foreigners and their upper class associates were in retreat.[105] Though this policy did not directly target the non-governmental private sector, the field of aviation was exceptionally singled out as an arena that needed to be Egyptianized.

The opportunity to do so came with the outbreak of World War II and the dramatic financial collapse of the Misr Group which owned the majority of Misr Airwork shares. In a quick move the Egyptian government purchased the majority shares of Misr Airwork and Arabized its name to *Misr lil-Tayaran.* By owning the only local aviation company and the one that operated all of the flying schools, the state practically controlled much of the civil aviation scene. Governed by the logic of Egyptianization, the state decided to open additional aviation schools in the countryside and introduce ordinary citizens to aviation. In addition, upon receiving several complaints from students, the language of instruction was changed from European languages to Arabic and the state began subsidizing half of the tuition fees of Egyptians. The upper class "foreigners" continued to pay the full price. With more Egyptian pilots being trained the company encouraged the Egyptianization of the staff for most positions; including those of training and instruction. Other graduates were encouraged to apply for the upcoming Egyptian Air Force.[106]

However, despite their relative success in creating an Egyptian fleet of twenty-one airplanes by 1946, during the war aeronautical activity was highly restricted.[107] Anxious about their own position in Egypt in time of war, the British administration tightened its control over Egypt's aeronautical connections with the outside world and terminated the *Misr lil-Tayaran* route to Iraq where pro-German sympathy was especially high.[108] In addition, the British imprisoned the president of the Royal Aero-Club Muhammad Tahir for being a Nazi sympathizer. Soon afterwards, his Nazi-style gliding project came to a complete halt and the gliding school was closed down.[109] The 1941 failed aeronautic escape of the popular Egyptian Army Chief of Staff, Aziz al-Misri, who famously tried to reach the Axis Forces in the Western Desert and conspire against the British vindicated such polices.

And so, while the war years provided some space for limited government agency in the form of Egyptianization, the overall experience was rather restricted and limited in scope. Therefore, it did not mange to undo the divisions of the 1930s. Indeed, in a 1948 survey participants were asked what means of transportation they would favor were flight and train fares to be the same. The responses indicated that while only 1% of peasants chose the airplane, 85% of the upper class and 80% of bureaucrats voted for the airplane. Businessmen (70%), artists (48%) and workers (25%) followed suit.[110] The fact that a specialized journal bothered to conduct such a survey and differentiate the results on the basis of class and occupation indicates that even after more than a decade of

Egyptianization, access to modern technology was still conceived of in the same terms of the 1930s.

Indeed not much had changed. As soon as the war came to an end, the upper class was back in business as it harnessed the Palace and European investors to establish two new airlines in competition with *Misr lil-Tayaran*.[111] Other European airlines such as Imperial Airways also re-opened offices in Egypt and incorporated it into their regular flight schedule to Africa and the Far East. However, at this point, the opposing visions of modernity were already impossible to reconcile. Whereas the upper class continued to insist on the obviously irrelevant universal rhetoric of the pre-war years, students and workers constantly challenged the official socio-political order. In those years Egypt's socio-political landscape radically changed as idealism and violence became closely intertwined. The culturally alienated Muslim Brotherhood, whose growing middle class supporters had hardly benefited from the modern order of liberalism, turned to political terrorism and, for our purposes rather symbolically, murdered Prime Minister Mahmud Fahmi al-Nuqrashi, a former hero of the "Age of Speed" vision. The government responded in the same fashion and eliminated their leader, Hasan al-Banna. The communists were also brutally suppressed. Following the national humiliation of the 1948 war in Palestine and the popular anti-British struggle in the Suez Canal area, there was greater willingness to solve problems by force alone.[112]

These volatile urban conditions were ignited on January 1952 when thousands of young people burned to the ground much of the cosmopolitan center of down-town Cairo. Orchestrated by some of the classic middle class political organizations such as the Muslim Brotherhood, Young Egypt and even the *Wafd*, ordinary people attacked the high profile upper class establishments such as cinemas, hotels, restaurants, clubs, department stores and foreign airline offices. Obviously, this violent attack was not about aviation but about a cluster of varied aspects of upper class modernity of which aviation was but one symbol among many deemed inaccessible and unpatriotic.[113] Six months after the burning of Cairo the July revolution took place and the excluded, frustrated, unemployed but educated middle class began to push for a profound structural change.

Still holding to the vision of modernity for all, members of the *effendiyya* embraced an authoritarian path of modernization whose horizons of action were centralist, corporatist and politically coercive. Aided by this group, the goal of the post-1952 Nasserist regime was to provide the masses with pluralist and democratic access to modern technology, progress and mobility. Concomitantly, the typical leader of this revolutionary drive for progress was no longer "the elitist *littérateur* with the highest degree of intellectual acumen and a perfect awareness of the literary taste of the West." Instead, the new leaders were the engineers and bureaucrats who had witnessed the inability of a self-regulated civil society to modernize. They were now turned into missionaries of technology whose vision was to use Soviet-style central planning in order to modernize *ad infinitum*.[114]

And so, just as in the pre-revolutionary era aviation was a metaphor for upper class exclusive modernity, after 1952 bureaucrats hoped to usher in an egalitarian vision of modernity through the organization of a mass popular movement of avi-

ation which included air-scouts, rural aviation clubs, festivals, special training
and specialist periodicals. At its peak during the early 1960s it was said to have
incorporated tens of thousands of members from all over the country.[115] This
movement, whose history is worthy of being the subject of a separate study, illus-
trated that the Nasserist cult of aviation was primarily concerned with demon-
strating the possibilities and potential of anti-elitist egalitarian modernity.

Conclusion

The challenge for Egyptians over the past two centuries or so has been to
convert the modern world into their own world. They needed to study it, as-
similate it, practice it, and, ultimately, transform it into a familiar environment
which would be in harmony with its multiple pasts and traditions. With this
challenge in mind, the value of technology in general, and that of the airplane
in particular, was by no means anything strictly technological. Like any other
technological medium, the message of the airplane " . . . is the change of scale or
pace or pattern that it introduces into human affairs."[116] This changing rhythm
is the very essence of being modern.

The "Age of Speed" celebrated the new temporal and spatial experiences this
"changing rhythm" had to offer and presented the possibility of fashioning a
world that was the product of free human choice. During this era the upper
class conceived of aviation as something that would give shape and authority
to its own modern enterprise. It therefore treated the airplane metaphorically
and impregnated it with its own values of universal equality, liberty, progress,
and harmony. However, this modern project was entertained against the con-
tradictory background of Egypt's socio-economic and political realities, in which
freedom, peace, equality, and even the very notion of dignity were quite scarce.
The various cosmopolitan myths about flying were designed to play down these
contradictions, provide orientation, assurances and guidance for those who trod
the modern path. Simultaneously, however, the totalizing, unitary and universal
rhetoric of the upper class also served as transparent means of social control in
face of the dangers of modernity.

This reality resulted from the fact that the airplane was not the fruit of local
technological and scientific labor. As such, it lacked the symbiotic dynamic be-
tween the technological shaping of society and the social shaping of technology.
With no such balancing mechanism of social feedback, which could potentially
have served to empower the middle class, power was entrusted to the Egyptian
upper class who "translated" European aviation into something meaningfully
Egyptian and thereby turned the arrival of the airplane into a one way, unitary,
total and seemingly universal pattern of consumption. As a result of this asym-
metric relationship between technology and society the airplane was discussed,
understood and operated as a fixed entity that miraculously change society and
culture.[117]

Toward the 1940s, however, and more so since, greater symmetry was in-
troduced into the process of "technological translation," when previously dis-
enfranchised indigenous elements gained the political power to shape the bu-
reaucratic aspects of technological consumption (regulation), and, later, to even
produce local technological artifacts (cars, transistor radios, and even missiles).

With this greater symmetry came the unexpected rise of the state as the ultimate agent of high technology, a process which opened a new chapter in the technological history of post-colonial Egypt.

However, beyond the proper business of Egyptian aviation, lies the greater issue of how to write the history of technology in societies where there is no symmetry between the technological shaping of society and the social shaping of technology. Though there may be multiple possible means of doing so, this paper suggests disengaging not only from old-fashion modernistic narratives of progress but even from the holistic studies of post-colonial "science, technology and medicine" which replaced them. In their place it might be beneficial to examine the acculturation process of specific technologies and artifacts, each on its own terms. Thus, histories of electricity, the sewing machine, the motored irrigation pump, the pesticide, the typing machine, and the magnetic tape are likely to offer intimate and finely nuanced accounts of multiple local experiences of technology along the lines of class, gender, political affiliation, ethnic origin, geographical location and religious creed.[118] From the urban aristocrat to the rural peasant, the life of each of these inhabitants was touched by modern technology. However, it was touched differently, unevenly, and with varied intensity and outcomes ranging from luxurious comfort to wretched misery.

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ENDNOTES

Dedicated to Robert Tignor of Princeton University on the occasion of his retirement.

1. *The Egyptian Gazette,* January 27, 1930, p. 5.

2. 'Ali Muhammad Mahbub, *Ma'alim tatawwur al-tayaran fi Misr* (Cairo, 1976), pp. 35–39. *The Egyptian Gazette,* January 27, 1930, p. 5.

3. Mustafa Sadiq al-Rafi'i, "Fatih al-jaw," and Ahmad Shawqi, "Ila al-nasr al-misri," *al-Muqtataf,* March 1930, p. 207, 265. Ibrahim Zaydan, "al-Tayyara," *al-Hilal,* July 1930, p. 1001. *al-Muqtataf,* February 1930, pp. 234–237. *The Egyptian Gazette,* January 27, 1930, p. 5.

4. For Sidqi's own account of his life and flight see: "al-Batal Sidqi," *al-Lataif al-Musawwara,* March 24th, 1930, 10–11; March, 31st, 1930, pp. 7–8.

5. See: "al-Tayyar Sidqi, *al-Lataif al-Musawwara,* February 3rd, pp. 8–9. "al-Batal Sidqi," *al-Lataif al-Musawwara,* March 24th, 1930, 10–11; March, 31st, 1930, pp. 7–8.

6. David Arnold, *Science, Technology and Medicine in Colonial India* (Cambridge, 2000), p. 2.

7. Derived from Greek and originally used as honorific title to designate Western educated bureaucrats, the term *effendiyya* came to Arabic through Turkish and was applied to the modernized Egyptian middle class of the first half of the twentieth century. See more below.

8.   Lord Cromer, *Modern Egypt* (London, 1908), Vol. II, pp. 260–261.

9.   See more below.

10.   By this time, both legally and notionally, Egypt was still part the Ottoman Empire and Istanbul was its technological center. Ihsanolu Ekmeleddin's collected studies: *Science, Technology and Learning in the Ottoman Empire: Western Influence, Local Institutions, and the Transfer of Knowledge* (Burlington, VT, 2004) and Yakup Bektas, "The Sultan's Messenger: Cultural Constructions of Ottoman Telegraphy 1847–1880," *Technology and Culture* 41 (October 2000), pp. 669–696.

11.   Amira El-Noshokaty, "End of the line?," *Al-Ahram Weekly,* Issue No.585, 9–15 May, 2002. http://weekly.ahram.org.eg/2002/585/li1.htm (accessed November 2005). André Raymond, *Cairo* (Cambridge, MA, 2000), p. 324. Samir Raafat, "History of Motoring in Egypt," *Egyptian Gazette,* March 2, 1997. John Chalcraft, *The Striking Cabbies Of Cairo and Other Stories: Crafts And Guilds in Egypt, 1863–1914* (Albany, NY, 2004).

12.   Leo Marx, "Closely Watched Trains," *NYRB,* March 15th, 1984, p. 28. Some of these aspects are discussed in Timothy Mitchell, *Colonising Egypt* (Berkeley, 1998).

13.   Marwa Elshakry, "Darwin's Legacy in the Arab East: Science, Religion and Politics, 1870–1914," (Princeton University: unpublished Ph.D. dissertation, 2003).

14.   During the festival twelve European aviators competed in breaking records of speed, altitude and distance. Flying attempts from an improvised Heliopolis airstrip to the Pyramids was a focus of attention. *al-Hilal,* March 1st, 1910, p. 338. *Egyptian Aviation Review,* (hereafter, *EAR*) September 1935, p. 8.

15.   The 1911 Italian invasion of Libya was a notional breakthrough with relation to aviation. Following this war, which witnessed the first field experiments with combat aviation (aerial surveillance, photography, gunning, and even some modest attempt at bombardment), the airplane entered the popular imagination of Europeans and Ottoman elites with greater intensity than ever before. The Balkan wars that followed had a similar impact and prompted the Ottomans to enter the era of military aviation. *EAR,* September 1935, p. 4. *EAR,* June–July–August, 1948, p. 6. Pierre Oberling, "A History of Turkish Aviation: Aerostation Among the Ottomans," *Archivum Ottomanicum* Vol. IX, 1984, pp. 156–7. Pierre Oberling, "Aviation n the Ottoman Empire: Its Place in the History of Ottoman Technology," in X. Türk Tarih Kongresi: Ankara, 22–26 Eylül 1986: Kongreye sunulan bildiriler, pp. 2481–2492.

16.   In early 1913 the *Aero-Club de France* declared a race from Paris to Cairo and between October and November 1913 three teams of aviators left Paris on their way to the Pyramids. The eccentric and undisciplined French aviator, Jules Védrin, who managed to insult most of his hosts, won the race and his aeronautical achievement became the center of public Egyptian/Ottoman attention. *Egyptian Gazette,* December 30, 1933, p. 3. *New York Times,* December 30th, 1913, p. 1. Dov Gavish, *Tsipor Ha'dam be Artsenu: Hatisot Harishonot le Eretz Israel* [First Flights to the land of Israel] (Jerusalem, 2003), pp. 22–31.

17.   Envious of French achievements in their own airspace (and, probably, coming to think of the air as "theirs"), on February 1914 the Ottoman government declared an aerial race to Cairo. Three teams left for the journey. After initial successes and unprecedented local excitement and pride, two teams tragically crashed. The dead aviators were laid to

rest next to the Mausoleum of the near-mythic medieval hero Salah al-Din in Damascus. On March 6, 1914, the third Ottoman team touched base with cheering crowds in Cairo. Yavuz Kansu et al. *Havacilik tarihinde Turker* [The Turks in Aviation History] (Eitmesgut, 1971), pp. 149–156. I thank the anonymous reviewer for this Turkish reference to which I do not have access. See also Dov Gavish, *Tsipor Ha'dam,* pp. 43–71.

18.   Ihsanolu Ekmeleddin, "Aviation: The Last Episode in the Ottoman Transfer of Western Technology," in Ihsanolu Ekmeleddin (ed.), *Science, Technology and Learning,* pp. 189–219. Dov Gavish, *Tsipor Ha'dam,* p. 72.

19.   B. Z. Kedar, *Mabat ve od Mabat al Eretz Israel* [Looking Twice at the Land of Israel] (Jerusalem, 1995), p. 28.

20.   Ahmad Shafiq Basha, *Hawliyat misr al-siyasiyya* (Cairo, 1926–1931 Vol. I–II), pp. 101–102. See also Lon O. Nordeen and David Nicolle, *Phoenix Over the Nile: A History of Egyptian and Air Power 1932–1994* (Washington and New York, 1996), p. 11.

21.   *New York Times* May 22nd, 1916, p. 1.

22.   At about the same time, Egyptian student 'Abd al-Rahim Mustafa was also trained in Germany but never flew in Egypt. 'Ali Muhammad Mahbub, *Ma'alim tatawwur,* p. 33.

23.   *EAR,* November 1935, p. 18; and *EAR,* December 1947–January 1948, pp. 1–2. Joel Beinin and Zachary Lockman, *Workers on the Nile: Nationalism, Communism, Islam and the Egyptian Working Class, 1882–1954* (Princeton, NJ, 1989), pp. 195–196.

24.   Eliezer Tauber, "The First Arab Pilots in the British Royal Air Force," *Middle Eastern Studies* Vol. 36 No. 4 (October 2000): p. 175.

25.   For streamlined design in the aviation and car industry see: *al-Muqtataf,* October 1932, p. 264. For architecture see: Samir Raafat, *Cairo, the Glory Years: Who Built What, When, Why and for Whom* (Alexandria, 2003).

26.   Robert Tignor, "In the Grip of Politics: The Ford Motor Company of Egypt, 1945–1960," *Middle East Journal,* 44:3 (1990: Summer): pp.385–6.

27.   Tawfiq Dus, Egyptian Minster of Transportation, used these terms. *al-Hilal,* August 1930, p. 1162.

28.   "Dramas of Speed," *Egyptian Gazette,* December 27th, 1933, p. 9.

29.   "Sur'at al-tayyarat," *al-Muqtataf,* January 1923, pp. 100–101. "A'zam sur'a fi al-tayyarat," *al-Muqtataf,* November 1925, pp. 472–3. "Asra' al-tayarat fi al-'alam," *al-Muqtataf,* March 1931, p. 248. and *al-Muqtataf,* April 1940, p. 460.

30.   "Asra' al-riyah," *al-Muqtataf,* July 1920, p. 87.

31.   "Sur'at al-tuyur," *al-Muqtataf,* September 1921, p. 311.

32.   "Sur'at al-nur," *al-Muqtataf,* January 1925, p. 117.

33.   "Tabaqat al-hawa' al-ulya," *al-Muqtataf,* January 1925, p. 117. "Sur'at al-tayaran fi al-tabaqa al-tukhruriyya," *al-Muqtataf,* February 1936, pp. 286–7.

34. "'Asr al-sur'a wa ala'asab al-makduda," *al-Risala*, May 2, 1938, p. 759. "al-Sur'a," *al-Muqtataf*, October 1932, p. 265.

35. "al-Sur'a," *al-Muqtataf*, October 1932, pp. 263–5.

36. "al-Tayaran ila al-qutb al-shimali," *al-Muqtataf*, September 1921, p. 311. "al-Sa'at," *al-Muqtataf*, February 1927, pp. 109–110.

37. Taha Husayn, "Fi al-jaw," *al-Risala*, January 8, 1934, p. 404.

38. See: "Zaman" in *al-Bustan* (Beirut: al-Matba'a al-Amrikiyya, 1927), Vol. I, pp. 1014–1015.

39. For printed text of radio lectures see: "al-Sufun al-sahmiyya," *al-Muqtataf*, March 1931, pp. 307–313. "Mustaqbal al-tayaran," *EAR*, December 1935, pp. 3–6.

40. *Egyptian Gazette*, December 11, 1933, p. 3.

41. *al-Ithnayn wal Duna*, November 5, 1930, p. 33.

42. *Egyptian Gazette*, March 27th, 1931, p. 5. *al-Hilal*, May 1931, p. 968.

43. *al-Hilal*, February 1933, pp. 466–468.

44. "al-Tayaran wal-dual al-sughra," *al-Hilal*, May 1925, pp. 822–824. Jean Lozach, "L'aviation Commerciale dans le Proche-Orient: Etude de Géographie Économique," *Bulletin de la Sociéte Royale de Géographie d'Egypte*, Vol. 29, 1936, pp. 187–8, 195. Ahmad Shafiq Basha, *Hawliyat misr al-siyasiyya*, Vol. III, pp. 420–421.

45. Until 1952 gliding was an under-financed and marginalized hobby. "Gabriel taqla basha," *EAR*, February–March 1948, p. 9.

46. Symbolically, from 1925 the international "Pilot's Day" was also observed in Egypt. "Yawm al-tayaran," *al-Muqtataf*, January 1925, pp. 112–113.

47. *EAR*, September 1935, p. 8. 'Ali Muhammad Mahbub, *Ma'alim tatawwur*, pp. 41–42.

48. Ibid., pp. 39–42.

49. Hasan Anis soon left to England for the purpose of purchasing a new fleet for the Aero-Club. FO 371/14650

50. See an internal memo British Ministry of Foreign Affairs: FO 371/100041

51. "al-Batl Sidqi," *al-Lataif al-Musawwara*, March 24th, 1930, 10–11. 'Abd al-Latif Muhammad al-Sabbagh, *al-Tayaran al-madani fi misr: Dirasa fi tarikh muassasat misr lil-tayran, 1932–1956* (Cairo, 2004), pp. 20, 23.

52. "Dawlat al-nuqrashi pasha wal-tayaran," *EAR*, April 1947, p. 8. *EAR*, September 1935, p. 8–9. *EAR*, May 1946, p. 2.

53. *Egyptian Gazette*, March 30, 1931, p. 5. *EAR*, October 1935, p. 15. 'Ali Muhammad Mahbub, *Ma'alim tatawwur*, pp. 44–7.

54. Already in early 1930 the British agreed in principle to the establishment of the Royal Egyptian Air Force. Lon O. Nordeen and David Nicolle, *Phoenix Over the Nile*, p. 14.'Ali Muhammad Mahbub, *Ma'alim tatawwur*, pp. 50–51.

55. Eric Davis, *Challenging Colonialism*, pp. 182–183.

56. "Misr Air Work Flying Schools," *EAR*, September 1935, p. 11. *EAR*, December 1938, p. 2.

57. In 1934 around 164 passengers a week flew between Cairo and Alexandria. 'Ali Muhammad Mahbub, *Ma'alim tatawwur*, pp. 83–91. Eric Davis, *Challenging Colonialism*, pp. 182–183.

58. Archivio Centrale dello Stato (ACS), Ministro della Cultura Populare/Propaganda/ Egitto/ 63.

59. Magda Baraka, *The Egyptian Upper Class Between Two Revolutions* (Reading, UK, 1998), p. 45.

60. Yoav Di-Capua, "Sports, Society, and Revolution," in Elie Podeh and Onn Vinclair (eds.), *Rethinking Nasserism* (Gainesville, Florida, 2004), p. 147.

61. Magda Baraka, *The Egyptian Upper Class*, pp. 191, 195–196.

62. Lucie Ryzova, "Egyptianizing Modernity: The 'New Effendiyya' Social and Cultural Constructions of the Middle Class in Egypt under the Monarchy" in Arthur Goldschmidt, Amy Johnson et Barak Salmoni (eds.), *Re-envisioning the Egyptian Monarchy* (Cairo, 2005), pp. 124–125. For a general history of the new *effendiyya* see: Mu'min Kamal al-Shafi'i, *al-Dawla wal-tabaqa al-wusta fi Misr* (Cairo, 2000), especially pp. 173–229. Israel Gershoni and James Jankowski, *Redefining the Egyptian Nation, 1930–1945* (New York, 1995), pp. 7–22.

63. Already in 1907, a group of excluded Egyptians founded *al-Ahali*, the first nationalist sport club in Egypt and by far one of the most important in the entire region. Yoav Di-Capua, "Sports, Society, and Revolution," pp. 145–149.

64. Roel Meijer, *The Quest for Modernity: Secular Liberal and Left-Wing Political Thought in Egypt 1945–1958* (London, 2002), pp. 22, 37–65.

65. For radical politics see James Jankowski, *Egypt's Young Rebels* (Stanford, CA, 1975). Lucie Ryzova, "Egyptianizing Modernity," pp. 124–163.

66. Relli Shechter, *Smoking, Culture and Economy in the Middle East: The Egyptian Tobacco Market, 1850–2000* (London, 2006), pp. 119–120.

67. Ibid., p. 120.

68. Taha Husayn, "Fi al-jaw," *al-Risala*, January 8, 1934, p. 403.

69. Taha Hussein, *The Future of Culture in Egypt* (Cairo: The Palm Tree, trans. Sidney Glazer, 1998), XII.

70. Taha Husayn, "Fi al-jaw," *al-Risala*, January 8, 1934, p. 403.

71. "Mu'assis al-tayaran," *al-Hilal*, April 1938.

72. *al-Muqtataf*, December 1921, p. 603. "Mu'assis al-tayaran," *al-Hilal*, April 1938.

73. *EAR*, September 1935, p. 11.

74. "Misr Air Work Flying Schools," *EAR*, September 1935, p. 11.

75. *Who's Who in Egypt and the Middle East* (In French, 1950), pp. 91–94, 591.

76. See for instance the advertisement for traveling abroad with "Superlative Comfort & Speed." *EAR*, October 1935, p. 2.

77. All but five pilots were men (see more below). "Pilots' Certificates," *EAR*, September 1935, p. 14. 'Abd al-Latif Muhammad al-Sabbagh, *al-Tayaran al-madani fi misr*, p.103.

78. "al-Tayyran min uruba ila amrika," *al-Muqtataf*, July 1930, pp. 237–238. "al-Safr bil-hawa' bayna uruba wa amrika," *al-Muqtataf*, January 1920, p. 93. "al-Tayyaran min al-qahira ila al-ra's," *al-Muqtataf*, March 1920, pp. 284–285.

79. "Flying Clubs of India," *EAR*, December 1938, p. 7. "Inqilab ijtima'i bi fadl al-tayyarat," *al-Hilal*, March 1927, pp. 601–604. For example: *al-Hilal*, July 1929, pp. 1100–1103. "Ghalaba al-Nasr 'ala dawlatihi," *al-Muqtataf*, July 1927, pp. 1–7.

80. Ali Amine Yehia, "A Pleasant Trip to the Golden Horn," *EAR*, October 1935, p. 3.

81. Ibid., pp. 4–5.

82. Kamal Abd al-Din, "Rihlati ila salzburg," *EAR*, September 1937. Ahmad Ismail, "Rihlati al-jawwiyya bayna misr wa almania," *EAR*, May 1937, pp. 10–12.

83. *Egyptian Gazette*, December 20, 1933, p. 7.

84. *EAR*, February 1938, p. 2.

85. Guiruis Awadallah, "The Touring Club of Egypt," *EAR*, December 1947–January 1948, pp. 1–2. *EAR*, September, 1946, cover page.

86. For America see: Joseph Corn, *The Winged Gospel: America's Romance with Aviation, 1900–1950* (New York, 1983), pp. 29–70.

87. *EAR*, April 1937, p. 6. "Inqilab ijtima'i bi fadl al-tayyarat," *al-Hilal*, March 1927, pp. 601–604.

88. Jean Lozach, "L'aviation Commerciale dans le Proche-Orient," pp. 157–229. Guiruis Awadallah, "International Air Barriers: Egypt's Effort to Remove Them," *EAR*, September 1935, p. 10.

89. Already in 1925 the imaginary imperial line of Cairo Cape-Town was connected by a direct uninterrupted flight. Over the years many European flights to Asia regularly stopped in Egypt. *EAR*, September 1935, p. 15.

90. Taha Hussein, *The Future of Culture in Egypt*, p. 146.

91. The analogy with the Suez Canal was not lost on contemporary writers. "Inqilab ijtima'i bi fadl al-tayyarat," *al-Hilal*, March 1927, pp. 601–604.

92. *al-Hilal*, August 1930, p. 1165.

93. Taha Hussein, *The Future of Culture in Egypt*, p. 9.

94. *Egyptian Gazette*, December 30, 1933, p. 3. 'Ali Muhammad Mahbub, *Ma'alim ta-tawwur*, pp. 93–107.

95. Israel Gershoni and James Jankowski, *Redefining the Egyptian Nation*, pp. 1–31.

96. For example: "al-Tayaran wal-harb al-qadima," *al-Muqtataf*, December 1, 1936, pp. 513–520. "al-Ta'irat al-harbiyya," *al-Muqtataf*, November 1939, pp. 408–409. "Qanabil al-ta'irat," al-Muqtataf, March 1940, pp. 290–291. See also: Israel Gershoni, *Egypt and Fascism, 1922–1937* (Tel Aviv, [in Hebrew], 1999), pp. 261, 271–3.

97. Even after the horrendous World War II, Amr Ibrahim, President of the *Royal Aero-Club* addressed the audience of the 1946 International Civil Aviation Congress in the same language of old-fashioned pre-war idealism. *EAR*, September 1946, p. 1.

98. Roel Meijer, *The Quest for Modernity*, pp. 1–33.

99. *Egyptian Gazette*, November 30, 1933, p. 5.

100. Ibid.

101. Ibid.

102. "Mashru' al-ta'ira," *EAR*, April 1937, pp. 3–4.

103. Peter Fritzsche, *A Nation of Fliers: German Aviation and the Popular Imagination* (Cambridge, MA, 1992), pp. 103–121.

104. Roel Meijer, *The Quest for Modernity*, p. 37.

105. For Egyptianization in academia see: Donald Reid, *Cairo University and the Making of Modern Egypt* (Cambridge, 1990), pp. 87–102.

106. 'Abd al-Latif Muhammad al-Sabbagh, *al-Tayaran al-madani fi misr*, pp. 36–41, 94–95, 95–98.

107. Ibid., p. 41.

108. Lon O. Nordeen and David Nicolle, *Phoenix Over the Nile*, p. 39.

109. Christopher Buyers, "Muhammad Tahir *Pasha*," http://www.4dw.net/royalark/ Egypt/egypt9.htm (accessed on October 22, 2005). Ibrahim Jazarin, "Qisat al-tayaran al-shira'i," *al-Hilal*, December 1933, p. 77.

110. 'Abd al-Latif Muhammad al-Sabbagh, *al-Tayaran al-madani fi misr*, pp. 61–62.

111. Ibid., pp. 41–42.

112. Roel Meijer, *The Quest for Modernity*, p. 40.

113. Anne-Claire Kerbouf, "The Cairo Fire of 26 January 1952 and the Interpretation of History," in Arthur Goldschmidt et al. (eds.), *Re-envisioning the Egyptian Monarchy,* pp. 194–216.

114. Roel Meijer, *The Quest for Modernity,* p. 40.

115. ʿAli Muhammad Mahbub, *Maʿalim tatawwur,* pp. 127–129, 176–177. Naʾima ʿAbd al-Munʿim, "Izdiyad al-waʿy al-jawwi ʿinda al-shabab," *ʿAsr al-tayaran,* No. 112, October 1965, p. 23.

116. Stephen Kern, *The Culture of Time and Space, 1880–1918* (Cambridge, MA, 1998), p. 229.

117. See: Thomas J. Misa et al. (eds.) *Modernity and Technology* (Cambridge; MA, 2003). I thank Marwa Elshakry for this reference.

118. For relevant works see: Uri Kupferschmidt, "The Social History of the Sewing Machine in the Middle East," *Die Welt des Islams.* 44 No. 2 (2004): pp. 195–213, Annabelle Sreberny-Mohammadi and Ali Mohammadi, *Small Media, Big Revolution: Communication, Culture, and the Iranian Revolution* (Minneapolis, 1994), Timothy Mitchell, *Rule of Experts: Egypt, Techno-Politics, Modernity* (Berkeley, 2002).