

THE CARTOGRAPHIC CITIZEN UNIVERSITY FROM THE UNPRECEDENTED CIVIC TOPO-CARTOGRAPHIC MODEL MADE IN PALESTINE (BATTIR FROM PARIS 2012-2019)

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ABSTRACT

This paper presents the framework and the issues of an unexpected encounter between ‘*les Cafés-cartographiques*’ and an unknown Palestinian Laboratory of Ideas: the Battir Landscape Management Plan², a citizen-based palestinian experience recognized as one of the most relevant contemporary digital mapping projects. From heterogeneous topographic data handled on the spot at the end of April 2012, an unexpected universal topo-cartographic adventure took place, spreading ever more the simple complexity of the meaning ‘to be a cartographer’. Offering a visible definition of what is ‘a topographic map’, a huge and complete collective work, usually confidential, followed-up. Managed from the local aerial photography, AutoCad primarily and ArcGis files were at first opened in @Illustrator, then harmonized through art mapping in order to render accessible training tools in cartography. The students of the National School of Geographic Sciences cleaned the original databases and rectified the data through the orthophotography of the region, geolocating its informations. Since then, this local topo-mapping works in correlation with all our professional cartographic systems, through all possible cartographic aspects and uses. Battir self-produced the very first space topographic data of its country, Palestine, where no institutional data was available. Working in cartography at small scales in order to produce the best map aiming at informing its readers, our trades have always remained confidential. The commonal result is visible, not the means to reach it. Today, when all seems to be available through a keyboard click, this body of knowledge shifts dangerously. Battir provides an exceptional efficient range of living tools that demonstrate this.

Key words: Body of knowledge, Survey, Topography, Cartography, Geographic Information, Deontology.

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² The plan includes an anthropologic study and a local survey managed in the frame of the Battir Landscape Ecomuseum (BLE, 2007—2011)

BEING CARTOGRAPHER IS AT FIRST A TEDIOUS COLLECTIVE WORK DIFFICULT TO EXPLAIN

Mapping offers the occasion to do so many digressions about passion, admittedly often flattering, but not useful in the usual meaning sense, since it ignores the real work involved in mapping.

Cartography encompasses a whole set of techniques aiming at presenting, on specific formats how, over the years, we inhabit (together) our territories and our societies. This is done through any possible projections, whatever the scale of our approach, whatever its thematic.

Those techniques change continuously according to the progress of sciences and improved creativity levels, according to what has to be said, to whom it has to be said and how, in order to remain accurate and make the map that must be created clearly understood. Today, at the digital era, we need ever more to explain our unique collective processes to reach the correct map available to inform its users.



Fig. 1: Each map is an iceberg.

The villagers and the scientific wonders: the cartographer, a perfect go between.

To create a map, *a fortiori* a topographic map, means to manufacture an iceberg (figure 1). Cartographers, working side by side with the different

disciplines involved on the space and territory measurements and their representations, are living for months and long under a waterline in order to complete a tedious collective work ending by specific editing processes. Always checked out, step by step, following a planned management, respected by each collaborator, this incredible amount of expensive procedures is carefully coordinated in order to produce the final document to spread: the map, top of the iceberg which will eventually surface.

A JOB TO LEARN BEFORE BEING A “PASSION”: TO MAP MEANS TO PRODUCE COLLECTIVE COMMUNICATION TOOLS IN ORDER TO SHARE UNDERSTANDING

Drawing maps means having broken down data in order to reorganize it by prioritized layers of information. Playing with the strength of the pencil strokes, with colors, their transparencies, creating graphics from a scale to another in order to underline and bring forward what would be needed to be able to memorize the content of the map at a glance. Drawing, it means to study the best modeling of a subject, and that means to study it first in order to understand, and then, be capable of explaining and transmitting its meaning. Drawing maps supports the underlying understanding, patiently acquired, about what has to be learned in order to share it.

A map is a document designing knowledge in order to transfer it. To create it, the cartographers must necessarily share their thinking with interlocutors who are specialists in each specific topic of their discipline, depending on what the map they work on has to convey.

Collecting data, measuring them, interpreting images and learning to report very precisely each delineated information at readable small scales, using specific tools to obtain the intended result... drawing, engraving and photoengraving, transitioning from one time period to another, until the emergence of digital tools, which have constantly progressed. In a nutshell to map means to learn. One of the strong points of a cartographer, if not the most essential one, is to be capable of adapting any production methods to the most modern and rational tools ever in our process, to reach the expected collective goal. In the world of mapping, nothing can be improvised, and everything is always transformed in order to offer its best outcomes, that can then be archived and always prepared to be updated and enhanced.

HOW TO TRANSFER A LANDSCAPE INTO A MAP? AN INVITATION TO SHARE PEDAGOGY

Founded in 1999, *‘les Cafés-cartographiques’* are informal meetings open to all publics and aiming to share this infinite wealth of our cartographic

professional worlds. It is a friendly way to get out of our inner circles and address everyone, to explain to what extent cartography is a discipline in itself, which cannot be mixed into any other, neither into geography, nor into history, but which requires everyone's contribution. In our meetings, authors from all disciplines have a say but the conductive wire remains the map. Through a request received in October 2011 from landscape design students in Lille (ENSALP, France), 'les Cafés-cartographiques' were invited 6 months later, end of April 2012, in a Palestinian village named Battir – it remains important to specify that this place was not mentioned before and ignored by our collective mapping activities. The aim of the journey was supposed to help them answer their question: HOW TO TRANSFER A LANDSCAPE INTO A MAP? (figure 2).

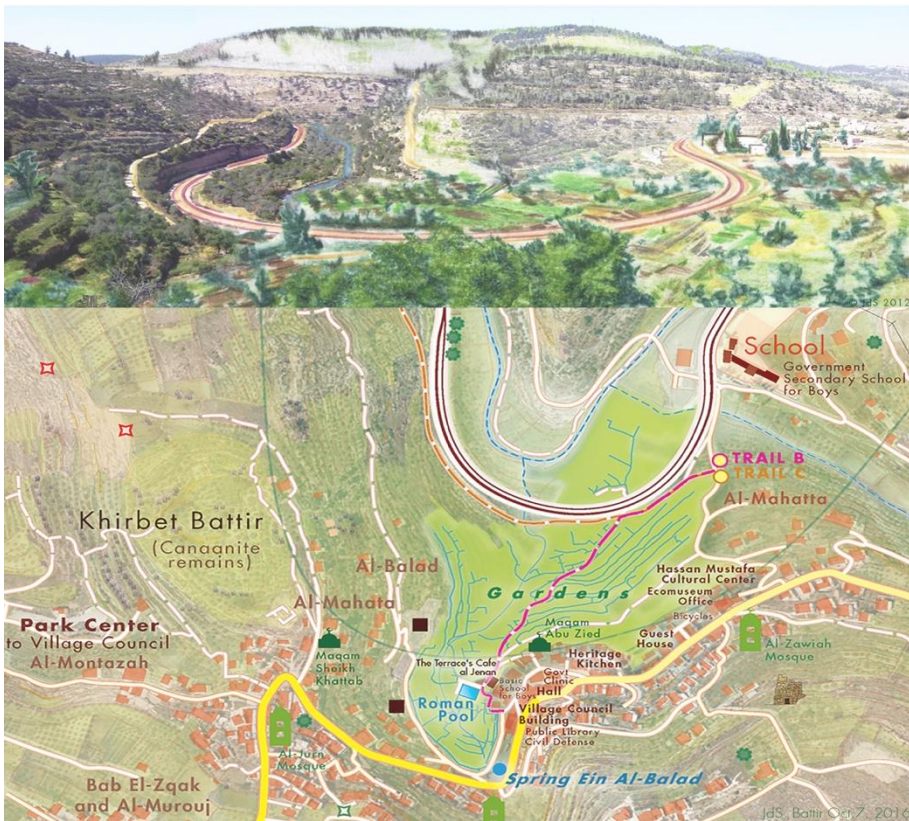
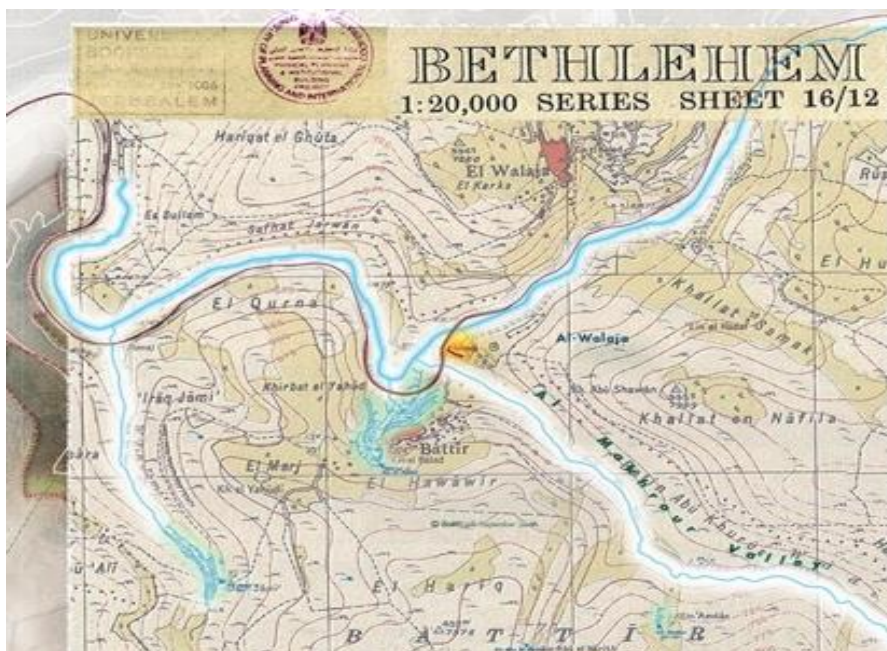


Fig. 2: From the landscape to the map: sizing the reality in order to map it (Mapping Battir 2007—2011 / 2012—2019).

The objective was to explain the students how maps could be drawn through immersing into those landscapes of Palestine. What has happened since has never been anticipated.

Lille is twinned with Nablus in Palestine. In the context of this town-twinning frame, the students had participated in a Summer university course in 2010. At that time, they had the opportunity to spend 3 days in Battir and meet with the Ecomuseum team, to see the maps under preparation. While they did not totally understand what all that work through the survey meant, they had a feeling that something was happening there, that would be important to understand and disseminate. The activities of '*les Cafés-cartographiques*' triggered their initiative and the answer simply was "Yes" to their invitation.

Therefore, the trip was prepared without really knowing what would be found out there. To seize the cartographic frame of Battir, all available maps of the region were collected from the national Library of France (BnF), from the National Geographic Institute (France Maps Library), from the Department of Defense Historical Resources, BRGM (French Geological Survey), etc. From our side, this historical maps funds represented the first mapping data base of this exceptional topographic adventure. The best location of Battir first appeared in the Bethlehem sheet 16/12 produced in 1944 by the Ordnance Survey Cartographic Department (figure 3).



**Fig. 3: Battir located in Bethlehem sheet 16/12
Ordnance Survey, 1944 (1:20 000 abstract).**

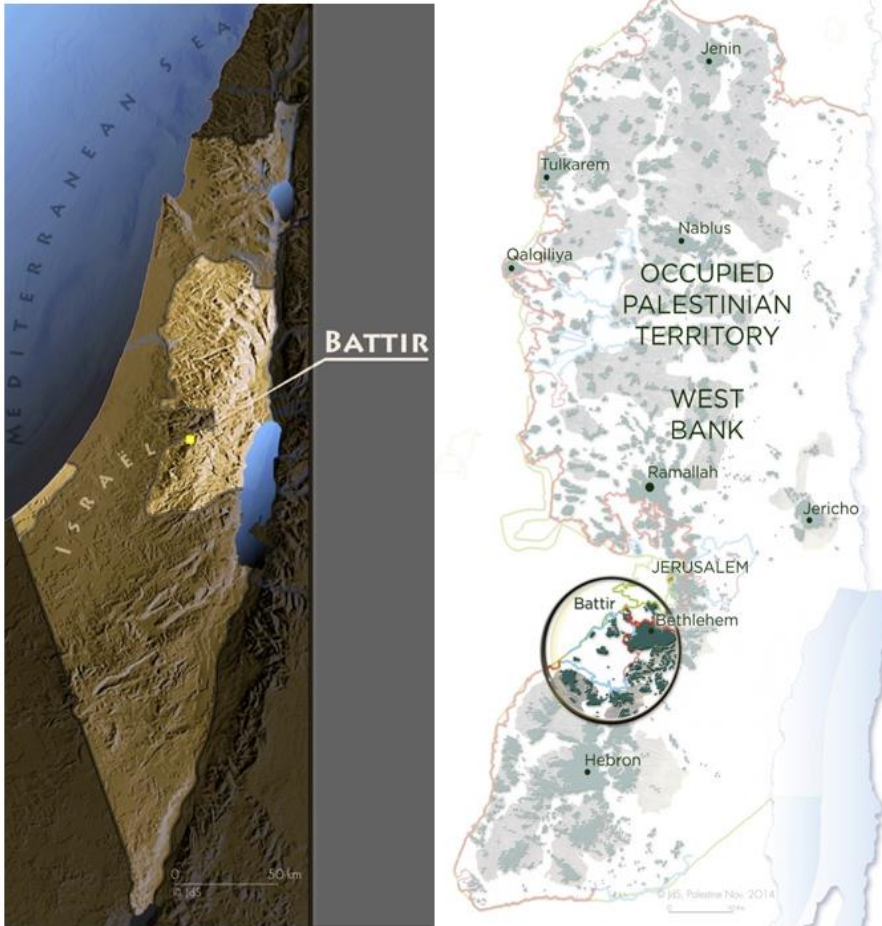


Fig. 4: Battir, location in West Bank.

The trip began with a few days in Nablus where the students have therefore exposed their 2010 landscape studies. The actual encounter with Battir took place from April 24 to May 5, 2012 (figure 4). 12 short days to assess the wide scope of those unprecedented but yet unknown topographic works, under the best auspices of the civil engineer who was a member of this visionary Ecomuseum team - which in the meantime had left Battir (since November 2011), but no one was yet aware of that.

AN ANTHROPOLOGIC STUDY AND A CITIZEN SURVEY IN ORDER TO MAP THE TERRITORY

The anthropologic study completed by a local survey above mentioned

constitutes an unprecedented cultural program set up after the Second Intifada, thought as soon as in 2003, in this occupied village, Battir:

“In terms of perceptions and representations of the changes and the transformation that occurred on the local historical landscape in the last decades, communities express generally negative feelings and evaluations about them, and this specially in rapport of the disruptive effects of the Israeli occupation on the Palestinian territorial, economical and socio-cultural integrity. One of the main changes caused by Israeli occupation is identified in the dramatic decrease of the value of the agricultural sector, that resulted in the impoverishment of the population, in the increasing high rates of unemployment specially amongst new generations, in the deterioration of valuable agricultural land or its use for uncontrolled urban development, in the loss of important traditional knowledge and abilities, in the disruption of the bonds of solidarity that were at the base of the socio-cultural fabric of the communities, and in other negative repercussions at the material and symbolic levels” (Cancellotti, Cirino, Harb, 2009).

The historical part of the village is split by the Armistice Line (per the Rhodes Agreements of 1949). Battir is located 5 kilometers West of Bethlehem and 7 kilometers South-West of Jerusalem (figure 5).

Today, more or less 6000 inhabitants live there, essentially a rural population. A very high unemployment rate plagues its young people, as it is the case everywhere else around.



Fig. 5: Battir, a Palestinian village 5 kilometres west of Bethlehem, 7 kilometres south-west Jerusalem (April 2012)

At the time of the survey, Battir established an Ecomuseum in order to develop as well as to protect this ongoing cultural program: a social-anthropological project initiated over 12.5 Km² of its territory and surrounding areas (figure 6, 7).



Photo: Unesco Working Team [BLE 2007-2011, abstract]

**Fig. 6: UNESCO working group, Battir Landscape Ecomuseum (2007—2011)
Civilian Cartography is, at first, to make peace.**

The aim was to react to the planned progress of the Separation Wall, to refuse the eradication of a culture going back thousands of years (figures 8, 9), to explain how the untouched equilibrium of its landscape has nourished its population up until today, based on a pattern maintained since ancient times:

“[...] through survey and the exploration of the available land registries, from photographs, from maps, from aerial photos; all of this to reconstruct a ‘map’ that makes the different forming processes of the landscape visible, whether the landscape is built upon or not. This takes place through the recognition of permanent things and remains of buildings in the territory” (Serrini, Zagaglia, 2012).

The aim was to demonstrate why nothing of it should be destroyed but that, on the contrary, this sustainable economy should be preserved and extended far beyond Battir.

Project	Protection Plan, management and valorisation of Battir landscape		Nicola Perugini. Planning policy and relations with the local community
Location	Battir (Parts of Beit Jala and Husan territories), District of Bethlehem, Palestine	Ordering Institutions	Municipality of Battir and UNESCO Ramallah Office (Funding from Norwegian Government)
		Chronology	2008-2012
		Extension of the Project	12 Km ²
Landscape Experts	Giovanni Fontana Antonelli/ Coordination of the plan, vocational trainings and participation	Cost of the Project	150 000 USD
Other experts and consultants	Lino Barone/ Landscape planning Claudia Cancellotti and Patrizia Cirino/ Anthropology of Landscape, Francesco Cini/ Geology and hydrology	Awards and recognitions	2011: Melina Mercouri International Prize for the safeguarding and management of cultural landscapes
		Management and Maintenance	Landscape Eco museum of Battir
Collaborators	Samir Harb, and Mohammed Hammash/ territorial analysis, GIS	Visitors opportunities	Yes (possibilities of local guides)
	Hassan Muamer / territorial engineering and territorial analysis	Management and Maintenance	

Fig. 7: UNESCO team for an unpublished Laboratory of Ideas, Battir Landscape Ecomuseum (2007—2011)



Fig. 8: Battir Landscape Ecomuseum. Terraces presentation (April 2012)



Fig. 9: Battir, the Gardens are named ‘Al-Jenan’ / ‘Paradise’ (April 2012)

This study as well as the survey itself have been supervised by the team of young professionals, without any support from any institution related with geographic information. In spite of all the local complexities deriving from the policy of occupation, this team was capable of together reinventing what characterizes « Civilian Cartography »:

“The main objective is building a collective conscience geared towards the necessity of protecting resources and consequently to control the alteration of the landscape; that interventions are not uncontrolled or irreversible, and that they allow the use of the same resources to present and future generations. This is followed-up with the diffusion of acquired knowledge on these themes and their constant updating” (Fontana Antonelli, 2007).

The guiding principle of the study was driven by G. Fontana Antonelli, an urban planner, architect and landscape expert, who at that time managed the Culture Desk at UNESCO Office in Ramallah. After nearly 4 years of joint reflection, the work was carried out from 2007 to 2011, within the frame of the UNESCO activities, supported by a Norwegian fund, by the World Heritage Fund and by an Italian cooperation program contributing to the development of municipalities in Palestine.

The study, its ins and outs, its authors and their respective functions, are presented in the synthesis drawn up by G. Fontana Antonelli in 2014 for *‘les Cafés-cartographiques’*; it has been translated from Italian into Arabic, English and French to allow for the widest possible promotion of all the work achieved: « Battir, a Laboratory of Ideas for the Safeguarding of the Landscape of Battir, District of Bethlehem, Palestine ».

SIZING THE SPACE AND THE TERRITORY

In order to study and qualify this territory, it has been necessary to measure it, so to survey it in order to map it: to measure each plot, each object in the landscape, each line that it comprises. To measure and to report... the young professional citizens who designed those works with the aim to protect the future of this village were neither geodesists, nor topographers, nor cartographers; they were urban architects, later joined (in February 2010) by a civil engineer, the only Battirian citizen in the team.

In the beginning, they sort of stumbled around. They searched for the best methods for mapping without having access to our standard tools (which were not available to Palestinian citizens), without orthophotography to build up the geometry of their topographic reports... They worked tirelessly for years in order to obtain their results and to guarantee the quality of their topographic mappings with the team of young anthropologists who supported the project, working closely together, side by side.

At the time, H. Muamer, the local civil engineer of the team, was still a convinced defender of this mapping study for the sake of the future of his village and his country. He remained the only Battirian citizen that had contributed to conduct this topographic survey, knowing perfectly well all the collective works done within the frame of this single Ecomuseum in Palestine, the study documents, their uses, each of its data and characteristic. The study with its survey was perfectly explained.

A LIVING ENCOUNTER: CARTOGRAPHY BETWEEN GEOHISTORY, GEODESY AND ART

During those 12 days, he often said how much he was just wearing himself out, all alone, explaining over and over again to a deaf audience the quality and the necessity of those works no one cared about. He got no support whatsoever and feared that it would all be lost down the drain.

Of course, to exhibit those works as part of the activities of '*les Cafés-cartographiques*', purpose of which being to make available to all publics anything related with cartography, particularly civil cartography, seemed immediately an urgent evidence. To be in Battir was not for any ulterior motive, but to support and spread around the importance of such works was the least that had to be done.

To be in Battir, welcomed in such a preserved peaceful environment (figure 10), was to answer the questions of the students.



Fig. 10: Battir, first walk (April 26, 2012).

However, in order to understand how maps should be drawn – in a professional way - one has to start with a survey measuring the landscape and the data items in it (figures 11, 12).

BATTIR INITIAL MAPPING, under **AutoCAD®** -Software application for 2D and 3D Computer-Aided-Design/CAD. **Battir Landscape Ecomuseum /BLE, 2007-2011.**
Map of Hydrographic System.

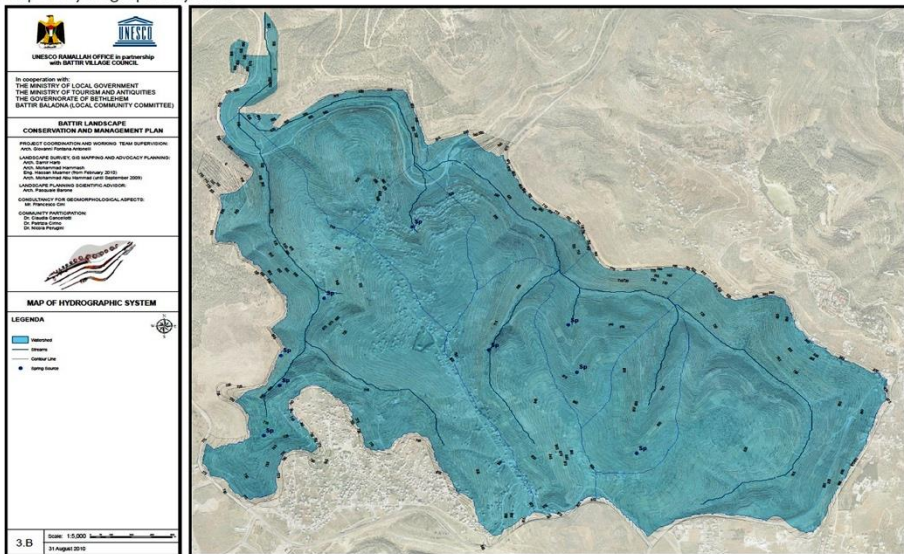


Fig. 11: The very first topographic map of Palestine. Hydrographic System (BLE, 2007-2011).

It was not expected to find such a wealth of educational material collected in such poor production conditions, altogether constructive, extremely encouraging, astounding, optimistic but totally spoilt as a result of the inertia of local decision makers who simply had no interest for their innovative citizen project.



Fig. 12: Civilian Cartography re-invented (BLE, 2007-2011).

It would have been useless and rude to spend 12 days in those landscapes with the students and try to re-design everything. Best was therefore to stay concentrate in order to understand precisely what had been done on the ground in Battir throughout all those years (figure 13, 14).



Fig. 13: an anthropologic study and its survey carried out within Battir: explanations by Eng. H. Muamer (BLE, April 2012).



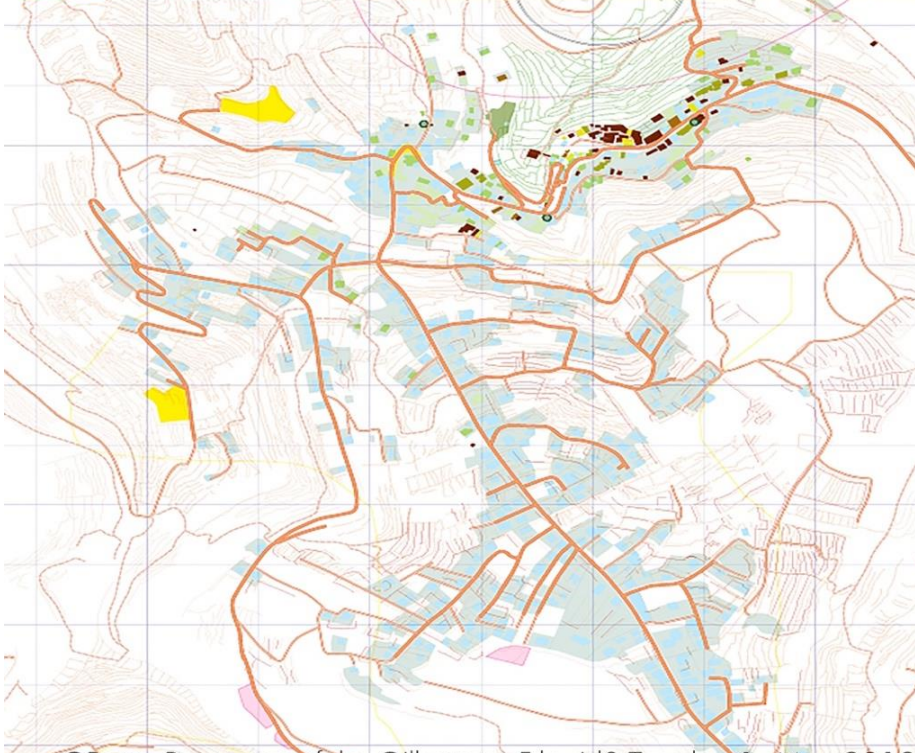
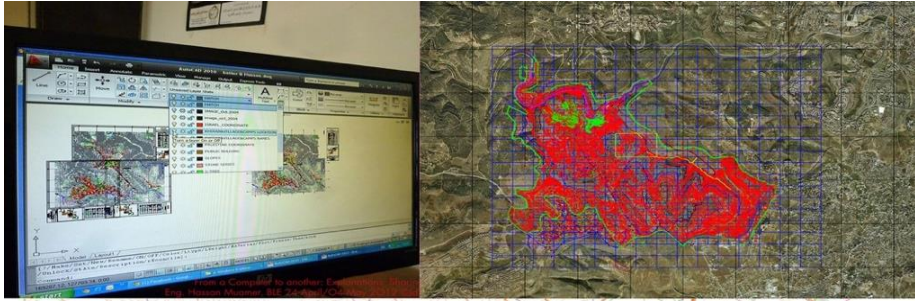
Fig. 14: 12.5 Km2 have been studied and mapped through each thematic of the battirian terroir and its surroundings between 2007— 2011. Explanations by Eng. H. Muamer (BLE, April 2012).

The utmost importance of those works shows how dramatic it would be to just give them up and how disheartening all was about such a dereliction – although Eng. H. Muamer was preparing for supervising in spartan conditions the restoration management in the valleys and in the historical center of Battir, totally convinced to obtain all targeted results.

At first, each data transmitted was rebuilt in a wide @Illustrator file (software used in cartography for the quality of its graphic functionalities and easily accessible to the students). The entire data contents were opened from their .PDF recordings in order to harmonize each contour, each line, each drawing, always retaining their axis through hundreds of processes to protect their geometry, in order to reproduce the map of the territory of Battir in its entirety, layer by layer, element by element, to eventually make available a simple-to-use, comprehensive educational material (figure 15).

The idea was to later explain our mapping processes and the graphic semiology through this exceptional model: to explain it to those students who were the heart and soul of this trip, and also to Eng. H. Muamer who wished to understand it all in order to, in turn, share it with the people around him and teach them our state-of-the-art practices, thus spreading such surveys to other villages.

Then, it was simply proposed to adjust, from Paris, the geographical data of Battir related to the orthophotography of the region, so that the whole data collected from the Ecomuseum could be geolocated and provide everyone with a professional cartographic approach, new and innovative to the Palestinian people.



©Battir, Beginning of the @Illustrator File, JdS Tuesday 1, May 2012

Fig. 15: From a computer to another, at first an encounter between AutoCAD® and @Illustrator (BLE 2012).

It is not possible to design topographic maps based on an aerial photograph which was the sole image of the territory made available in 2007 for the construction of their works. Topography is based on an « orthophotography » of the landscape, of which the geometric shape is rectified.

Eng. H. Muamer answered that it was exactly what he had been dreaming about, but that in reality such work could not be done in Battir. So, he shared his collective files in order to obtain back this Battirian data geolocated, to

develop its mapping as a teaching model, to explain the study widely in order to fight the ignorance about it.

Convinced that our professional circles would react also rationally in front of so many years of civic efforts to obtain the best local civilian mapping, it seemed evident that all of us together, we would do our best to give back to this village people their exclusive institutional cartography, which is their property in the fairest way, showing their outstanding landscapes (figure 16, 17, 18).



Fig. 16: Battir from the Valley of Makhrou (Quinquenel, 2014).



Fig. 17: Battir towards the Valley of Makhrou (D. Salachas, April 2012).



Fig. 18: Battir from the meander and its rail road (Quinquenel, 2014).

INTELLECTUAL PROPERTY AND COPYRIGHTS: A QUESTION OF DEONTOLOGY

When in Battir, one the very first things needed to be confirmed was this: Battirian citizens, whether adults or children, are the sole owners in their own right on their topographic data – something unique in the history of cartography, both amazing and fascinating, reassuring. That type of citizen wealth does not exist anywhere else in such terms. There is simply no equivalent in the whole world. Usually such institutional data would belong to States or armies... that is how the whole story started, without any previous notice.

NETWORKING AND SHARING, AN UNUSUAL CONCEPT GOING ON TO PROTECT THIS COLLECTIVE CARTOGRAPHIC PROPRIETARY DATA

As soon as May 2012, in order to exchange and stream files and data, specific pages relating to the activities of '*les Cafés-cartographiques*' were created on social networks, particularly on Facebook since anyone can access it (figure 19). And then one thing led to another and everything else just happened.



**Fig. 19: Battir historic village, the Roman Pool.
Network front page illustration available since May 2012.**

SOCIAL AND CULTURAL MAPPING NETWORKING EFFECTS AND STAKES

The stakes of these maps are multiplying at the rate of the dangers threatening the region and its inhabitants, ever made more invisible by all in principle. It is the very first time that topographic maps are made available to mirror the realities of this territory nurturing its own history and the people who live there, a 12.5 km² territory where all topics are discussed. No less than 80 topics of our 5 thousand-year-old history have been mapped here, with the objective to be shared with others. No topographic data is available anywhere in this part of the world, neither for the Palestinian citizens nor even for us all outside Palestine, for the quality of our information.

Battir is a model for us all, a Laboratory of ideas that has never ceased to function, that shares with delicacy information that has not been studied nor disseminated anywhere else. But neither the precision resulting from years of work, taking measurements in order to enhance the value of their common millennium heritage, nor the civic and civilian value of that collaborative work overall, have received any consideration locally in Palestine.

The major challenge from Paris then, remained to reconstitute that collective Battirian unprecedented cartographic patrimony. Battir has lost the knowledge pertaining to the management of its data and topographic maps since 2011, losing the achievable benefits to which this village community was entitled. It was fundamental to give back to Battir what belongs to its citizens. Institutional data cannot be negotiated but must be ever more explained through ever more available pedagogy in order to acquire on site the demanded means in skills and technical tools to manage it home.

Today, the reality of this territory and its inhabitants echoes through its cartographic exhaustive representations, sharing a life experience usually invisible, expressing what does exist in reality and is maintained by all of them... The more apposite, fair and beautiful the maps are, the more they get around the world and the more they stick in people's minds, far beyond our professional frames. An incredible amount of ties has been forged since May 2012, universal and indefectible, which must be accounted for. Battir was declared UNESCO World Heritage Patrimony on June 20, 2014, after 2 years of continuous efforts that any worldwide recognition implies.

However, the whole thing undoubtedly and precisely relies on that exhaustive work initiated in Battir, which belongs to its authors and to the citizen community of Battir as a whole, who have been able to obtain something no one else had ever achieved up until now. Our professional field is unique, uncommon, civil, civic. The data ownership and their usage are not negotiable.

Today, 7 years later, those collections of maps are seen and shared throughout the world and appear in more and more international scientific publications, international conferences and referenced studies.

FROM A CITIZEN SURVEY TO A CARTOGRAPHIC CITIZEN UNIVERSITY

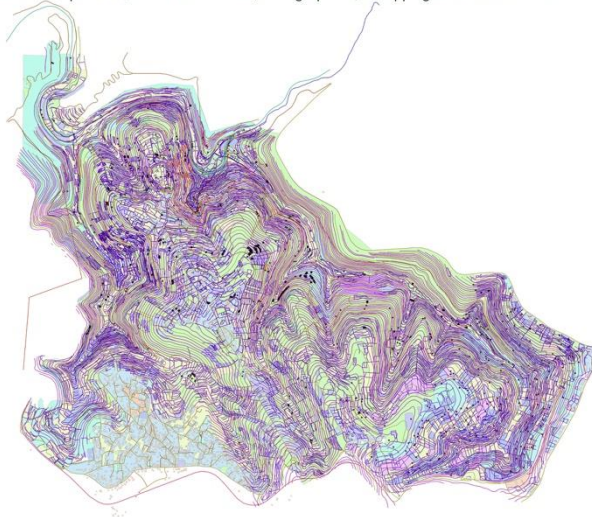
Since 2012, its topographic data geolocated allowed to record Battir in any of our professional cartographic systems, non-open source and open source licensed, offering worldwide a remarkable set of available mapping collections dedicated to training in cartography (figures 20 to 30):

“Battir topographic data and files have been used to design innovative and motivating pedagogical projects at the National School of Geographic Sciences in Paris. One of the main outcomes has been to diffuse this information on web collaborative open-platforms, thereby giving back to Battir citizens the use of this precious works ” (Quinquenel, 2013).



Fig. 20: Battir topographic database orthorectified from the aerial photography to the orthophotography of West Bank: clean-up the data on heterogeneous entries, harmonization and organized layers.

#Mapping#Battir, ArcMap file - Esri's ArcGis Suite of geospatial processing programs. ArcGis for Desktop -Create Smart Maps and useful Apps
ENSG/tutoring by Hervé Quinquenel & Jasmine D. Salachas, cartographers /#Mapping#Battir 2012-2016.



#Mapping#Battir, GeoConcept - Control your territory data and actions with your Geographic Information System. Vizualize, analyse and organize your networks and territories. Optimize and improve management practices and territorial knowledge.
ENSG/tutoring by Hervé Quinquenel & Jasmine D. Salachas, cartographers /#Mapping#Battir 2012-2016.

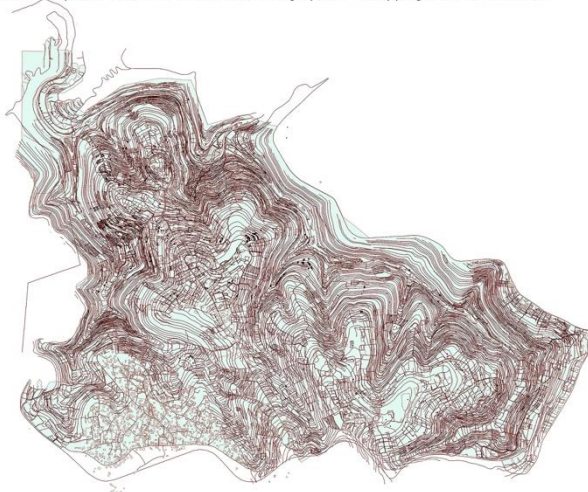
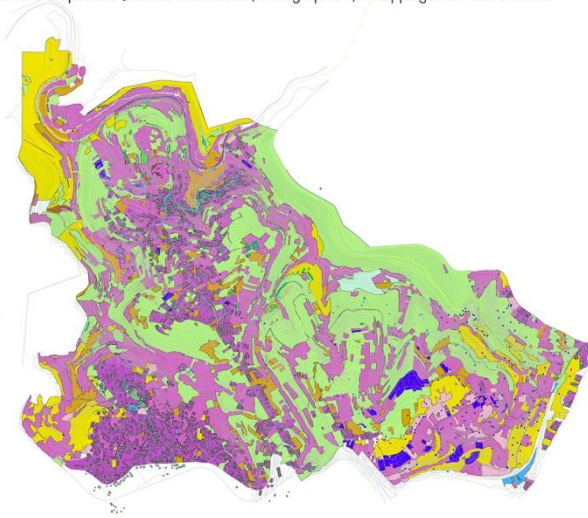


Fig. 21 & 22: Gathering data in ArcGis & GeoConcept, (Battir /ENSG, France 2012).

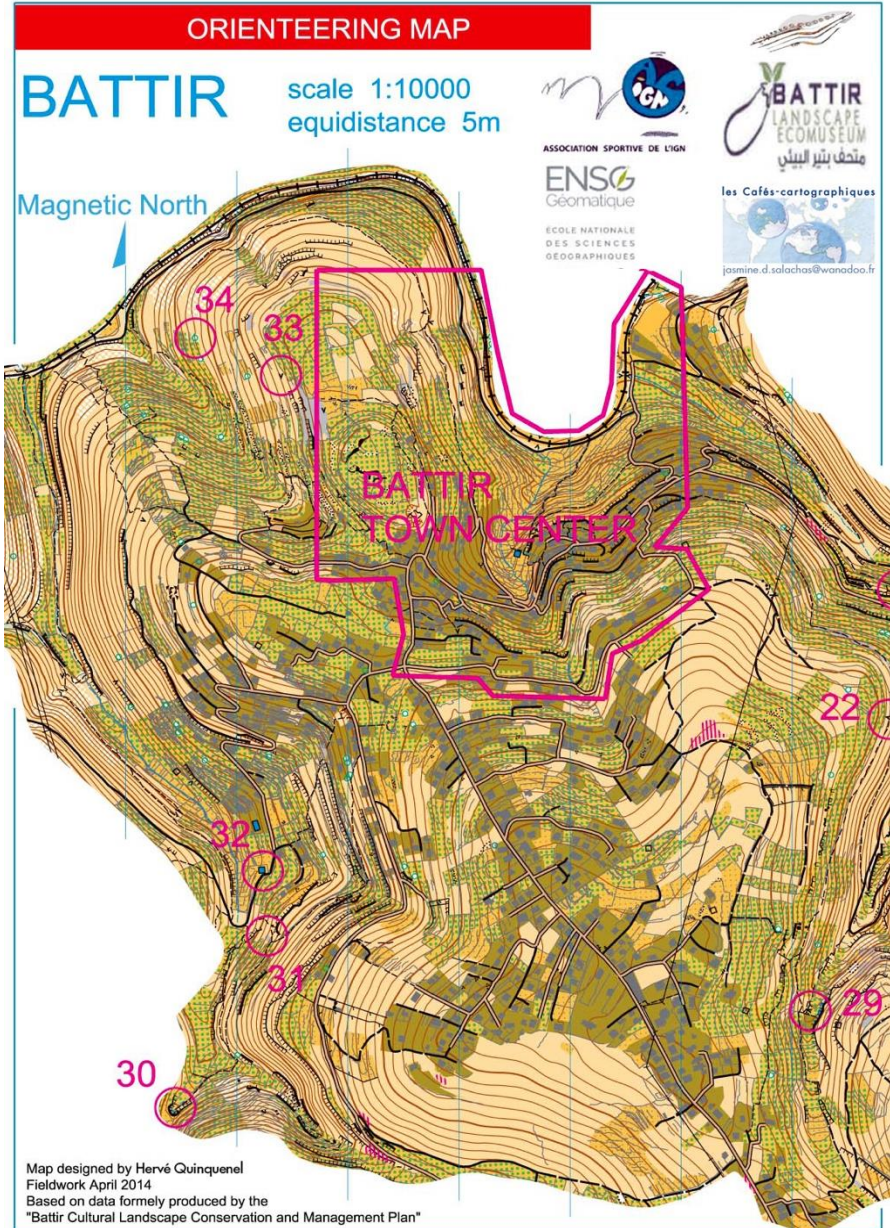
#Mapping#Battir, QGIS - Free and Open Source Geographic Information System.
Create, edit, visualize, analyse and publish geospatial information on Windows, Mac, Linux, BSD (Android coming soon)
ENSG/tutoring by Hervé Quinquenel & Jasmine D. Salachas, cartographers /#Mapping#Battir 2012-2016.



#Mapping#Battir, OCAD file for Orienteering - Smart software for cartography, to produce orienteering maps.
by Hervé Quinquenel, cartographer - Battir April/May 2014.



Fig. 23 & 24: gathering data in QGIS & OCAD, (Battir /ENSG, France 2012).



**Fig. 26: Battir orienteering map, OCAD file
by H. Quinquenel, cartographer-GIS engineer, ENSG-IGN (2014)..**

“Introduction to orienteering with children: this section is designed to share orienteering maps and courses on the village of Battir. These maps were created using data produced by The Battir Cultural Landscape Conservation and Management Plan project of UNESCO/Battir Village Council, that I have adjusted and updated by a rapid fieldwork survey (2 weeks) in April- May 2014. These maps and data are freely available, copyright free, and intended to be improved by any competent and motivated person wishing to go on site to continue this volunteer and philanthropic work supported by crowdsourcing. The principle is simple: you get the files from this website, update them, you send them back to us and we upload the new version with your data. In addition, racing courses were designed to explore the village and the surrounding valleys, their cultural, historical and remarkable natural heritage. If you like orienteering, racing, beautiful landscapes and friendly people, go there! This information has already been used by the school children of the village classrooms for educational activities related to mapping and understanding of the representation of their territory <http://www.coasign.fr>” (Quinquenel, 2014).



Fig. 27: Battir in @Illustrator file by J. Desclaux-Salachas, cartographer (July 2016).

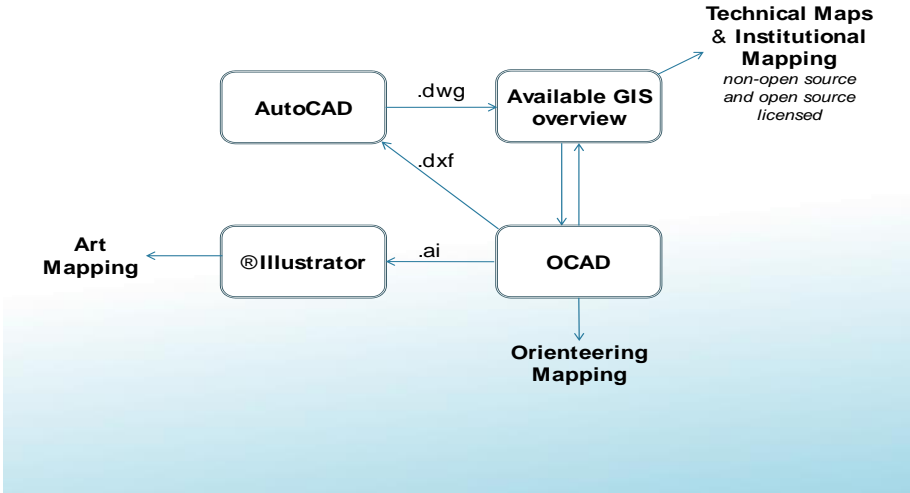


Fig. 28: Battir, the revealed citizen cartography between geodesy and art (les Cafés-cartographiques & ENSG since May 2012).

#Mapping#Battir, OpenStreetMap/OSM - Collaborative international project to create a free editable map of the world. **Battir is geolocated on OSM world project.** ENSG/tutoring by Hervé Quinquenel & Jasmine D. Salachas, cartographes /#Mapping#Battir 2012-2016.

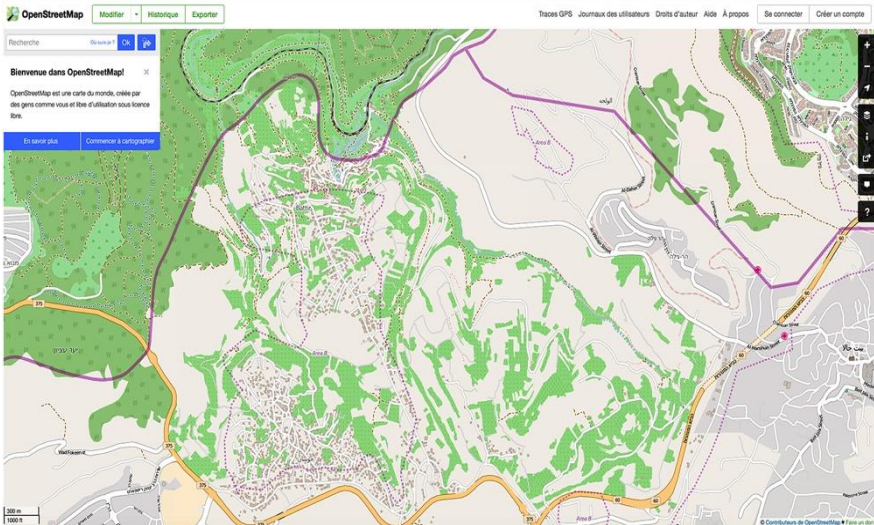


Fig. 29: Battir in OpenStreetMap since January 2015.



Fig. 30: Battir from OSM to F4map — 12.5Km² of geolocated data layers, available in open source as in 3D since October 2015.

Through its citizen experience, Battir made its land accurately visible, giving a worldwide living resonance to its inhabitants for the first time of their history.

But Battir also makes visible our institutional cartographic procedures ever confidential that we must explain publicly, here for the first time, in order to return to its owners their rights on their local Palestinian data.

The case of this cartographic framework is unprecedented in our common history. This topo-cartographic patrimony is a Battirian common good requested by all citizens in Palestine, much beyond this village:

“The map of Battir, as it was designed by palestinian, italian citizens, represents much more than a simple cartographic tool only used to locate oneself or to move in a place.

Here, beyond the cartographic object restituted, it is the way the work was made since 2003 in Battir witch promote a universal peaceful achievement: measuring the area where anyone is living, drawing the landscape, mapping, studying shapes and their history, all these actions as an ongoing process, help for building or rebuilding a strong individual identity, to finally be reassured by one's place in our world, and then to approach with serenity the other one, the others, without fear, in peace” (Couillet, 2015).

In December 2016, this Battirian Topographic Patrimony was recorded in the process ‘Year Of Map’ managed by the United-Nations and the International Cartographic Association ‘We Love Map’ (figure 31).



Fig. 31: ‘We Love Map’ (UN/ICA 2014-2016)

<http://www.akimbo.fr/cafescarto/cafescarto/we-love-mapsmapping-battir/>

Linking its observers to the representations of their space from their topography understanding, modelling a mental dialog between geodesy, cartography, art and sensitive mapping, Battir offers to us all today a travelling Cartographic Citizen University, where students and inhabitants of their neighborhoods map together:

“Between geodesy and art, our crossing point was to seize each step in the conception of a topographic map. Usually, topographic maps are implemented and handled by governmental institutions, without any (public) access to data. This is what the battirian topographic civic survey has overturned, offering to all to seize institutional cartography through its available citizen space data and pedagogic deconstructed mapping, drawing its landscape and its human history from their measurements. Since 2012, Battir has become our crossing point to accurately explore the construction of a map following the rules-of-art of institutional cartography. In Brussels, Ixelles-Athénée, beyond our usual professional practices in cartography and the process to teach it, the well known battirian cartographic ‘Laboratory of ideas’ became a training support to produce sensitive maps. The challenge was to produce a one week survey onto the sites of the concerned neighbourhood, in order to create a consistent mapping approach expressed in a series of layers per the format A0, prepared so as to be later enriched with the inhabitants. This sensitive mapping preparation was implemented by the students through the topographic reality understanding, following the rules of institutional cartographic process. The mapping representations they produced aimed to be accurate tools

to discuss during exchanges between the inhabitants, the local associations and with the youths of the local schools, together with several partners in the project, elected representatives and policymakers in charge of public developments of our living spaces, thus giving body to the participatory democracy” (Desclaux-Salachas, 2018).

To map, it is to think together. Together students and inhabitants produce series of maps aiming to build discussions between the citizens and their representatives, making their own maps their tools of decision support in their land use and living development (figure 32).

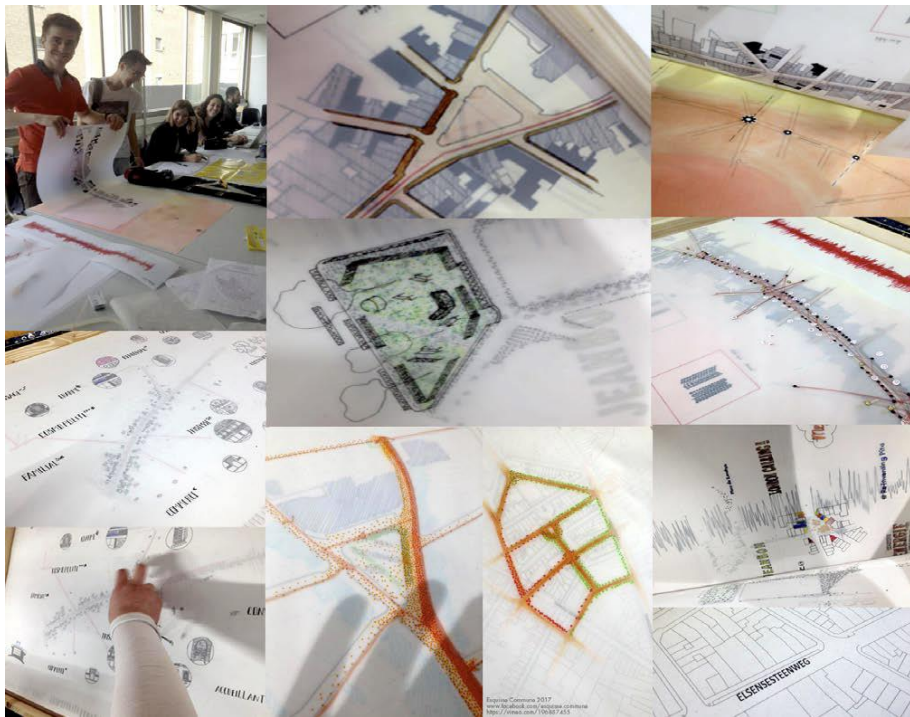


Fig. 32: ‘Esquisse Commune’ Survey 2017 (Ixelles-Athénées, Brussels/ ULB)
To map is to think together.

CONCLUSIONS

Cartographic-workshops and orienteering activities ever grew up the children of Battir their maps in hand. Pupils as students from neighboring villages are regularly invited as part of the Public activities and projects. Today, science is taking over a new position with the Palestine Museum of Natural History in Bethlehem, through several scientific studies within the

Battirian valleys, in particular the Valley of Al-Makhrou (figure 33), involving students from several universities. Students have started to implement a new survey concerning animal, vegetal, mineral and hydrographic resources in the valleys of Battir, managing their reports through different mapping applications. The high definition files are ever available to be shared in order to sustain new local studies, but not the geolocated data itself, exclusive property of this village community.

The work is ever further extended by sharing and explaining the issues of civilian cartography in general, demonstrating the impact of such communication tools and to what extent they bring us, together, into federative projects, for ever more openings through culture and education.

Topography is most often a discipline restricted to the military sphere. Here in Battir, it is the expression of citizenship and civic responsibility that drove to this comprehensive work, a unique, collective and collaborative civic master-piece, offering universally its multiple applications, helping to develop more educational material based on a model of living cartography.



Fig. 33: Battir, Valley of Makhrou, a life expectancy. To map is a civic act.

In 2016, in order to protect the intellectual property of the topographic measurements carried out at Battir, as to protect the copyrights on these collections of maps in respect of the battirian community, the association '*les Cafés-cartographiques*' submitted to the vote of the Norwegian Nobel Committee the Collective Nomination to the Nobel Peace Prize of their authors-inventors. Since, in order to sustain their universal practices and their impact in the longer run, as to overtly preserve their memory, this ongoing process is updated every year.

REFERENCES

1. Cancellotti, C., Cirino, P., & Harb, S., 2009. *Research and documentation of the tangible and intangible elements of olive cultural landscape in Palestinian highlands. Main study areas: the villages of Battir and 'Asira el Shamalyia (oPt). Final report.* Ramallah: UNESCO Ramallah Office, pp. 28-29.
2. Serrini, G., Zagaglia, C., 2012. *The Atlas. Reading and design of the urban environment*, in: Serrini, G., Fontana Antonelli, G. & Zagaglia, C. (eds.) "Bethlehem Area Conservation and Management Plan. The Atlas, Volume II". Paris: UNESCO, pp. 11-15GI-N2K (2016). <http://www.gi-n2k.eu>
3. Painho, Fontana Antonelli, G., 2007. *Preserving Cultural Landscapes in Palestine. Safeguarding historical and environmental resources towards a sustainable development*, in: "Conservation and Management of Landscape in Conflict Regions", Conference Proceedings. Birzeit: Birzeit University, pp. 15-26.
4. Fontana Antonelli, G., 2014. Battir Cultural Landscape Conservation and Management Plan 'A Laboratory of Ideas', '*les Cafés-cartographiques*' http://fr.slideshare.net/DESCLAUX_SALACHAS/traductionfontanaantonellienglish1mai2o14
5. Quinquenel, H., Desclaux-Salachas, J. 2014. Topographie & Citoyenneté: cartographie collaborative de Battir. ESRI-Journées SIG 2014: https://sig2014.esrfrance.fr/iso_album/jasmine.d.salachas.et.herve.quinquenel.2.pdf?fbclid=IwAR2uLh9abRWvKlkG6XJrpLypmp54v_hgaJXjSEL-xCnSmHZgqBMuNZgHXDc
6. Quinquenel, H., 2014. Orienteering map collaborative project in the village of Battir (Palestine): <http://www.coasign.fr/?p=1465&fbclid=IwAR0F7SCX5ve7iTMfMVMwYmFy3meDr-1kB0ZOIJCn1Hz0qsrB9rMCEhQOTy0>
7. Quinquenel, H., 2015. SIG de Battir, vers une donnée topographique collaborative. ESRI-Journées SIG 2015: <http://www.instazu.com/tag/Esri2015>
8. Desclaux-Salachas, J. 2016. The Cultural Exception. Battir, UNESCO World Heritage. 6th International Conference on Cartography, 13-17 June 2016, Albena, Bulgaria, pp.526-537: <https://drive.google.com/file/d/0B0iHyURqv8Ncb3RVTFdJMHZEVDQ/edit>
9. Desclaux-Salachas, J. 2017. Orienteering Activities in Battir, Palestine. UNESCO World Heritage Site. 28th International Cartographic Conference. Multifacetic Cartography for Children, Washington DC/US, 02-07 July 2017: <http://www.eventscribe.com/2017/ICC/assets/handouts/419794.pdf>

10. Couillet, A., Desclaux-Salachas, J., 2016. '*les Cafés-cartographiques*', We Love Maps & Mapping Battir. Genesis of an universal collaborative topographic process, a collective Nomination to the Nobel Peace Prize since 2016: <http://www.akimbo.fr/cafescarto/cafescarto/we-love-maps-mapping-battir/>
11. Desclaux-Salachas, J., 2018. From Institutional Cartography to Sensitive Cartographies, Battir as a meeting point: an experience of participative democracy. Battir, UNESCO World Heritage. 7th International Conference on Cartography & GIS, 18-23 June 2018, Sozopol, Bulgaria, pp.210-219: <https://my.pcloud.com/publink/show?code=XZ56mu7ZkYTWXmhT2NLeh7fOhH1jeYCsEL8k>