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Walking on Fire: Perambulatory Fieldwork and Shared Interpretation of Date Palm Fires North of the Third Cataract of the Nile (Northern State, Sudan)

Enrico Ille & Mohamed Salah

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Abstract

A significant increase in date palm fires in Sudan Northern State since the mid-2000s has triggered different and partially contradictory assessments of why and how they have broken out. These assessments were not merely disinterested cause-effect analyses or differing environmental interpretations: they were profoundly intertwined with political conflicts and socio-economic changes in the region that did not relate just to planned hydropower dams and the presence of extractive activities, respectively posing an immediate threat of displacement and pollution. The ensuing debates have also discussed wider implications for the future of the region and its population, especially for the Nubian majority that considers it to be their ancestral homeland. This connects an investigation about date palm fires to broader political issues, such as the resource policies of the Sudanese Ingaz regime (1989-2019).

In this article, we discuss the subsequent politics of information and evidence that had an essential impact on what data were gathered and made available, and which explanations were given credence by the actors involved. We started out from a set of questions guiding the reconstruction of the preconditions for the outbreak, spread and aftermath of the fires. Why was a place vulnerable to fire? What were the conditions that allowed the fire to happen? How did it actually break out (wildfire, accident or arson)? How did it spread? What conditions facilitated (or hindered) its spread? What was the response of those with an interest in extinguishing it? To what extent was the response successful in putting it out? What was the ultimate damage it caused? What did this event mean for the perception of and/or response to potential future fires? Our subsequent investigation was not defined by the need to identify a specific perpetrator or factor, but was rather aimed at producing a genealogy of circumstances and developments that influenced the way the fires gained ground. At the same time, we had to take into account the complexities of the landscapes and the changing status of date palms both in these landscapes and in human production planning.

Parallel to our own investigation, we began to observe the formation of opinions about these fire events, and to record the responses to our becoming involved in the societal

debate on which interpretation was convincing. This brought in aspects of our own positionality, especially regarding the politically loaded differentiation between "wild" and "man-made" fires, and between "accidental" and "intentional" fires. Accusations that the Sudanese central government had instigated a huge proportion of these fires were prominent among Nubian anti-dam activists, and the fact that one of us—Mohamed Salah—belongs to that group had implications for how we approached and analysed our research. The fact that we both opposed the Ingaz regime was also cause for reflection.

In order to deal with the ensuing methodological complications, we referred to academic debates on research approaches to and methods for the study of spatio-temporal relationships with different environments and evidence-making within the framework of these relationships. We identified walking interviews, a form of perambulatory fieldwork, as an appropriate technique for thinking through these complications, as they combine the detachment process of the interview—as a conversation intended to create a temporary reflective distance from the flow of social practices in order to look at them—with exposure to the familiar, in the sense of paths that have been taken numerous times. After reflecting on the multiple disciplinary contexts in which this technique has been discussed—such as anthropology, memory studies, environmental sociology and human geography—we present examples of fire event case studies that used it as part of the research process. In our presentation of walking interviews, we also use and reflect on different techniques of visualisation and illustration, including geotagged photos in combination with edited transcripts or self-reflective comments. We then offer more systematic reviews of the interpretations that were put forward during these and other interviews during our research.

As a result, our article indicates the different ways in which the affected date palm owners considered what exactly they had lost when their palms burned, and whether this may have been intentional. The complex answers to these questions highlighted both social and political processes around the palms. The economic and socio-cultural status of date palms has changed among the resident populations, especially since the second half of the twentieth century. Being intergenerationally linked to families through property relations and shared memories, palm trees and their changing status can simultaneously represent roots and the immovability of origin, or their loss. When one looks at the socio-ecological landscape and the place of date palm fires in it, one therefore finds several layers to the amount of damage done.

At the same time, the ongoing political tensions meant that many of the interpretations suggested by date palm owners, activists and government officials had a political thrust, whether accusatory or defensive, often along the lines of pre-existing hostilities. However, we found that in spite of the tense, antagonistic dynamics in the region, these interpretations could not simply be inferred from the various standpoints and interests in these dynamics. Our open-ended conversations with date palm owners, who generally shared opposition to the then ruling party (the NCP), revealed multiple and differentiated processes of interpretation. The juxtaposition of their arguments with statements from a local NCP member attested to the existence of points of convergence amidst their political antagonism around common notions, such as "negligence" and "climate change." A careful mapping of the boundaries of these shared ideas seems to us to be a valuable mediatory and methodological principle.

In conclusion, we confirm the importance of exposure as a crucial element of environmental research, especially if it relates to issues that not only our interlocutors but also we ourselves are invested in, whether emotionally, politically, or otherwise. At the same time, this also requires a highly reflective and critical analysis of subsequent research materials and their sources in order to navigate the intricate methodological complications this type of research process generates.

Keywords: political ecology, forest fire, conflict studies, walking interviews, Nubia, Sudan.

الملخص

المشي على النار: العمل الميداني خلال السير والتفسير المشترك لحرائق نخيل التمر شمال الشلال الثالث لنهر النيل (الولاية الشمالية، السودان)

أثارت الزيادة الكبيرة في حرائق النخيل في الولاية الشمالية بالسودان منذ منتصف العقد الأول من القرن الحادي والعشرين تقييمات مختلفة ومتناقضة جزئيًا حول سبب اندلاعها وكيفية حدوثها. لم تكن هذه التقييمات مجرد تحليلات عابرة لمعرفة السبب والنتيجة أو تفسيرات بيئية مختلفة: لقد كانت متشابكة بشكل عميق مع الصراعات السياسية والتغيرات الاجتماعية والاقتصادية في المنطقة التي لم تتعلق فقط بسدود الطاقة الكهرومائية المخطط لها ووجود الأنشطة الاستخراجية التي شكلت على التوالي التهديد بالنزوح والتلوث. الجدل التالي لحرائق النخيل ناقش تداعيات أوسع على مستقبل المنطقة وسكانها ، خاصة بالنسبة للأغلبية النوبية التي تعتبرها وطن أجدادهم. يربط هذا التحقيق حرائق النخيل بقضايا سياسية أوسع ، مثل سياسات الموارد لنظام الإنقاذ السوداني (1989-2019).

في هذه المقالة ، نناقش تبعات سياسات التعاطي مع المعلومات والأدلة التي كان لها تأثير أساسي على البيانات التي تم إتاحتها وجمعها ، وتحديد محددات المصداقية للتفسيرات المختلفة من قبل الجهات الفاعلة المعنية. بدأنا من مجموعة من الأسئلة التي توجه إعادة بناء الشروط المسبقة للحرائق واندلاعها وانتشارها وعواقبها. لماذا كان المكان عرضة للنيران؟ ما هي الظروف التي سمحت بحدوث الحريق؟ كيف اندلعت بالفعل (حريق هائل أو حادث أو حريق متعمد)؟ كيف انتشر؟ ما هي الظروف التي سهلت (أو أعاقت) انتشاره؟ وماذا كان رد فعل المهتمين بإخمادها؟ إلى أي مدى نجحت الاستجابة في إخمادها؟ ما هو الضرر النهائي الذي تسببت فيه؟ ماذا يعني هذا الحدث بالنسبة لتصور و / أو الاستجابة للحرائق المستقبلية المحتملة؟ لم يكن من النتائج المرجوة لدراستنا هذه تحديد مرتكب أو عامل معين ، بل كانت تهدف إلى إنتاج سلسلة من الظروف والتطورات التي أثرت على كيفية انتشار الحرائق. في الوقت نفسه ، كان علينا أن نأخذ في الاعتبار التعقيدات المكانية و الطبيعة و تغيير مكانة أشجار النخيل عند كل من هذه المناطق والايكولوجيا الخاصة بها وفي التخطيط البشري لإنتاج البلح.

بالتوازي مع تحقيقنا الخاص ، بدأنا في ملاحظة تشكُّل الآراء حول أحداث الحريق هذه ، و تدوين ردود الفعل حول مشاركتنا في النقاش المجتمعي ومدي تاثير مشاركتنا في تحديد أي من التفسيرات مقنعة مقارنة بالأخرى . مما أدى الى طرح سؤال موقعنا الشخصي من الاحداث ، لا سيما فيما يتعلق بالتمييز في التعريف السياسي بين الحرائق «البرية» و «تلك التي صنعنها الإنسان» ، وبين الحرائق «العرضية» و «المتعمدة». الاتهامات للحكومة المركزية في السودان بأنها حرضت على هذه الحرائق كانت بارزة في أوساط النشطاء النوبيين المناهضين للسدود ، وحقيقة أن أحدنا - محمد صلاح - ينتمي إلى تلك المجموعة . الحقيقة الأخرى أننا عارضنا نظام الإنقاذ. كل ذلك مدعاة للتفكير إن كان لمواقفنا أثار في مداخلنا للبحث و التحليل.

من أجل التعامل مع ما يترتب من تعقيدات منهجية ،رجعنا إلى النقاشات الأكاديمية حول مناهج البحث وطرق دراسة العلاقات المكانية والزمانية مع البيئات المختلفة وتقديم الأدلة في إطار هذه العلاقات. حددنا المقابلات خلال السير ، وهي شكل من أشكال القيام بالعمل الميداني المتنقل ، كأسلوب مناسب للتفكير في هذه التعقيدات، لأنها تجمع بين عملية الانفصال عن المقابلة - كمحادثة تهدف إلى خلق مسافة مؤقتة للتأمُل بعيدًا عن الممارسات الاجتماعية من أجل التمعن فيها - بالحفاظ على ما هو مألوف ، بمعنى المسارات التي تم اتخاذها عدة مرات. بعد التفكير في تعقيدات السياقات التخصصية التي نوقشت فيها هذه التقنية - مثل الأنثروبولوجيا ودراسات الذاكرة وعلم الاجتماع البيئي والجغرافيا البشرية - نقدم أمثلة لدراسات حالة حريق استخدمتها كجزء من عملية البحث. في عرضنا للمقابلات خلال السير ، نستخدم أيضًا ونفكر في تقنيات مختلفة للتصور والتوضيح ، بما في ذلك الصور المحددة المواقع الجغرافية جنبًا إلى جنب مع النصوص المحررة أو التعليقات التي تعكس ذات الباحث. ثم نقدم مراجعات أكثر منهجية للتفسيرات التي تم طرحها خلال هذه المقابلات وغيرها أثناء بحثنا.

نتيجة لذلك ، تشير مقالتنا إلى الطرق المختلفة التي نظر بها أصحاب النخيل المتأثرون إلى ما فقدوه بالضبط عند حرق النخيل ، وما إذا كان ذلك متعمدًا. سلطت الإجابات المعقدة على هذه الأسئلة الضوء على العمليات الاجتماعية والسياسية حول النخيل. تغير الوضع الاقتصادي والاجتماعي والثقافي لنخيل التمر بين السكان المحليين ، خاصة منذ النصف الثاني من القرن العشرين. كونها تربط بين الأجيال في العائلات من خلال علاقات الملكية والذكريات المشتركة ، فإن أشجار النخيل وحالتها المتغيرة يمكن أن تمثل في الوقت نفسه الجذور وثبات الأصل ، أو فقدانها. عندما ينظر المرء إلى المشهد الاجتماعي البيئي ومكان حرائق النخيل فيه ، يجد المرء بالتالي عدة مستويات لمقدار الضرر الذي حدث.

في الوقت نفسه ، كانت التوترات السياسية المستمرة تعني أن العديد من التفسيرات التي اقترحها أصحاب النخيل والنشطاء والمسؤولون الحكوميون كان لها فحوي سياسي ، سواء كان اتهاميًا أو دفاعيًا ، غالبًا على غرار العلاقة العدائية الموجودة مسبقًا. ومع ذلك ، وجدنا أنه على الرغم من ديناميكيات العدائيات المتوترة في المنطقة ، لا يمكن ببساطة الاستنتاج بناء على التفسيرات المبنية على وجهات النظر والمصالح المختلفة في هذه الديناميكيات. حيث ان محادثاتنا المفتوحة مع أصحاب النخيل ، الذين شاركوا بشكل عام في المعارضة للحزب الحاكم آنذاك (حزب المؤتمر الوطني) ، كشفت عمليات تفسير متعددة ومتباينة. إن تقارب حججهم مع تصريحات من عضو محلي في حزب المؤتمر الوطني يشهد على وجود نقاط تقارب وسط تناقضهم السياسي حول المفاهيم الشائعة ، مثل «الإهمال» و «تغير المناخ». إن الترسيم الدقيق لحدود هذه الأفكار المشتركة يبدو لنا كمبدأ وسيط ومنهجي قيم.

في الختام ، نؤكد على أهمية التَعَرّض للقضايا و الكشف كعنصر حاسم في البحث البيئي ، خاصة إذا كان يتعلق بقضايا ليس فقط تخص مُحَاورينا ولكن أيضًا نحن أنفسنا مستثمرون فيها ، سواء عاطفياً أو سياسياً أو غير ذلك. في ذات الوقت ، يتطلب هذا أيضًا تحليلًا انعكاسي بدرجة كبيرة والنقد للمواد البحثية اللاحقة ومصادرها من أجل التغلب على التعقيدات المنهجية التي يولدها هذا النوع من عمليات البحث.

الكلمات الدالة:علم الإيكولوجيا السياسية، حريق النخيل، دراسات الصراع، المقابلات خلال السير، النوبة، السودان.

Résumé

Marcher sur du feu : déambulations de terrain et interprétation partagée des feux de palmiers-dattiers au nord de la troisième cataracte du Nil (État du Nord, Soudan)

Une augmentation significative des feux de palmiers-dattiers dans l'État du Nord du Soudan depuis le milieu des années 2000 a donné lieu à des évaluations différentes, et en partie contradictoires, de leurs origines et de la façon dont ils ont éclaté. Ces évaluations n'étaient pas de simples études impartiales des relations de cause à effet ou des interprétations environnementales divergentes : elles étaient profondément liées aux conflits politiques et aux changements socio-économiques dans la région, et ceux-ci ne concernaient pas seulement les projets de barrages hydroélectriques et la présence d'activités extractives qui présentent une menace imminente de déplacement de la population pour la première et de pollution pour la deuxième. Les débats qui s'ensuivirent portèrent sur les implications plus larges pour l'avenir de la région et de sa population, en particulier pour la majorité nubienne qui la considère comme sa terre ancestrale. Ainsi, l'enquête sur les incendies de palmiers-dattiers est liée à des questions politiques plus larges, telles que les politiques en matière de ressources du régime Ingaz au Soudan (1989-2019).

Dans cet article, nous discutons des politiques subséquentes en matière d'information et de preuve qui ont eu un impact crucial sur la nature des données collectées et mises à disposition, ainsi que des explications qui ont été accréditées par les acteurs impliqués. Nous sommes partis d'un ensemble de questions qui nous ont guidés dans la reconstruction des conditions préalables à la vague d'incendies, à leur propagation et à leurs conséquences. Pourquoi un lieu particulier était-il vulnérable au feu ? Quelles étaient les conditions qui ont permis à l'incendie de se produire ? Comment a-t-il réellement éclaté (incendie, accident ou incendie criminel) ? Comment s'est-il propagé ? Quelles conditions ont facilité (ou entravé) sa propagation ? Quelle a été la réponse de ceux qui avaient tout intérêt à l'éteindre ? Dans quelle mesure cette réponse a-t-elle réussi à l'éteindre ? Quels ont été les ultimes dommages ? Qu'est-ce que cet événement a signifié pour la perception et/ou la réponse aux futurs incendies potentiels ? Notre enquête n'a pas été guidée par la nécessité d'identifier un auteur ou un facteur spécifique, mais visait plutôt à produire une généalogie des circonstances et des événements qui ont influencé la façon dont les incendies se sont propagés. En même temps, nous avons dû prendre en compte la complexité des paysages et l'évolution du statut des palmiers-dattiers, tant dans ces paysages que dans la planification humaine de la production.

Parallèlement à notre propre enquête, nous avons commencé à observer la formation d'opinions sur ces incendies et à noter les réactions face à notre implication dans le débat sociétal quant à la plausibilité de chaque interprétation. Cela a introduit des éléments de notre propre positionnement, en particulier en ce qui concerne la différenciation, politiquement lourde de sens, entre feux « sauvages » et feux « artificiels », et entre feux « accidentels » et feux « intentionnels ». Les accusations selon lesquelles le gouvernement central du Soudan aurait provoqué une grande partie de ces incendies étaient notables parmi les activistes nubiens luttant contre le barrage, et le fait que l'un d'entre nous, Mohamed Salah, appartient à ce groupe avait des implications sur la façon dont nous avons abordé et analysé nos recherches. Le fait que nous nous opposions tous les deux au régime Ingaz a aussi été le sujet de réflexions.

Pour faire face aux complications méthodologiques qui résultaient de ces problématiques, nous nous sommes référés aux débats universitaires sur les approches et les méthodes de recherche pour l'étude des relations spatio-temporelles avec différents environnements et la production de preuves dans le cadre de ces relations. Nous avons estimé que les entretiens déambulés (*walking interviews*), une forme d'approche de terrain, constituaient une technique appropriée pour réfléchir à ces complications, car ils combinent le processus

de détachement de l'entretien – en tant que conversation destinée à créer une distance réflexive temporaire vis-à-vis du flux des pratiques sociales afin de les observer – avec l'exposition à ce qui est familier, pris ici dans le sens de chemins qui ont été empruntés de nombreuses fois. Après avoir réfléchi aux multiples contextes disciplinaires dans lesquels cette technique a été discutée – comme l'anthropologie, les études de mémoire, la sociologie environnementale et la géographie humaine –, nous présentons des exemples d'études de cas d'incendie qui ont utilisé cette technique dans le cadre du processus de recherche. Dans notre présentation des entretiens déambulés, nous utilisons et envisageons également différentes techniques de visualisation et d'illustration, y compris des photos géolocalisées en combinaison avec des transcriptions éditées ou des commentaires autoréflexifs. Nous proposons ensuite une revue plus systématique des interprétations qui ont été avancées au cours de ces entretiens, et d'autres encore, au cours de notre recherche.

En conséquence, notre article indique les différentes façons dont les propriétaires de palmiers-dattiers affectés ont estimé leurs pertes lorsque leurs palmiers ont brûlé, et si cela avait pu être intentionnel. Les réponses complexes à ces questions ont mis en évidence les processus sociaux et politiques autour de la question des palmiers. Le statut économique et socioculturel des palmiers-dattiers a changé chez les populations résidentes, en particulier depuis la seconde moitié du xx^{e} siècle. Liés aux familles de manière intergénérationnelle par des relations de propriété et de mémoires partagées, les palmiers et leur statut changeant peuvent représenter à la fois les racines et l'immobilité de l'origine, ou leur perte. L'observation du paysage socio-écologique et la place des incendies de palmiers dattiers dans celui-ci, révèle ainsi plusieurs strates dans la quantité de dommages causés.

En même temps, les tensions politiques en cours signifiaient que de nombreuses interprétations suggérées par les propriétaires de palmiers dattiers, les activistes et les fonctionnaires du gouvernement, avaient une impulsion politique, soit accusatoire, soit défensive, qui se plaçait souvent dans la lignée des hostilités préexistantes. Cependant, nous avons constaté qu'en dépit des dynamiques tendues et des antagonistes dans la région, ces interprétations ne pouvaient pas simplement être déduites des différents points de vue et intérêts présents dans ces dynamiques. Nos conversations ouvertes avec les propriétaires de palmiers-dattiers, qui partageaient généralement l'opposition au parti au pouvoir à l'époque (le PCN), ont révélé des processus d'interprétation multiples et différenciés. La juxtaposition de leurs arguments avec les déclarations d'un membre local du PCN atteste de l'existence de points de convergence autour de notions communes malgré leur antagonisme politique, telles que la « négligence » et le « changement climatique ». L'établissement d'une cartographie minutieuse des limites de ces idées communes nous paraît être un principe médiateur et méthodologique de valeur.

En conclusion, nous confirmons l'importance de l'exposition en tant qu'élément crucial de la recherche environnementale, surtout si elle concerne des problématiques dans lesquelles non seulement nos interlocuteurs, mais aussi nous-mêmes, sommes investis, que ce soit sur le plan émotionnel, politique ou autre. En même temps, cela nécessite aussi une analyse hautement réflexive et critique des documents de recherche subséquents et de leurs sources, afin de bien appréhender les nombreuses complications méthodologiques que ce type de processus de recherche génère.

Mots-clés : écologie politique, feux de forêt, études des conflits, entretiens déambulés, Nubie, Soudan.

Resumo

Caminhar sobre o fogo: Trabalho de campo Perambulatório e interpretação partilhada de incêndios de tamareiras a norte da terceira catarata do Nilo (Estado do Norte, Sudão)

Um aumento significativo dos incêndios de tamareiras no Estado do Norte do Sudão desde meados dos anos 2000 desencadeou avaliações diferentes e parcialmente contraditórias sobre as causas e formas como eclodiram. Essas avaliações não eram meras análises desinteressadas de causa-efeito ou interpretações ambientais diferentes: estavam profundamente interligadas com conflitos políticos e mudanças económicas na região que não se referiam apenas a barragens hidroeléctricas planeadas e à presença de actividades extractivas, as quais representavam uma ameaça imediata de deslocamento e poluição. Os debates que se seguiram também discutiram implicações mais amplas para o futuro da região e da sua população, em especial para a maioria núbia que a considera sua pátria ancestral. Isso leva a relacionar a investigação sobre os incêndios com questões políticas mais amplas, como as políticas de recursos do regime de Ingaz no Sudão (1989-2019).

Neste artigo, discutimos as políticas subsequentes de informação e provas, que tiveram um impacto essencial sobre os dados recolhidos e disponibilizados, assim como as explicações privilegiadas pelos actores envolvidos. Partimos de um conjunto de questões que norteiam a reconstrução das condições prévias ao surto, à propagação e às consequências dos incêndios. Por que razões um lugar era vulnerável ao fogo? Quais foram as condições que permitiram que o incêndio deflagrasse? Como se espalhou realmente (incêndio natural, acidente ou fogo-posto)? Como se propagou? Que condições facilitaram (ou impediram) essa propagação? Qual foi a resposta dos interessados em extingui-lo? Em que medida a resposta foi bem-sucedida? Qual foi o dano final causado? O que significou esse evento para a percepção e/ou resposta a possíveis incêndios futuros? A nossa investigação subsequente não foi definida pela necessidade de identificar um perpetrador ou factor específico, mas visava produzir uma genealogia das circunstâncias e desenvolvimentos que influenciaram a forma como os incêndios ganharam terreno. Ao mesmo tempo, tivemos que levar em conta as complexidades das paisagens e a mudança do status das tamareiras tanto nessas paisagens como no planeamento da produção humana.

Paralelamente à nossa própria investigação, começamos a verificar a formação de opiniões sobre esses incêndios e a observar as respostas ao nosso envolvimento no debate social quanto às interpretações mais convincentes. Isso trouxe aspectos relativos a nossa própria posição, especialmente em relação à diferenciação politicamente carregada entre incêndios "selvagens" e "feitos pelo homem", e entre incêndios "acidentais" e "intencionais". As acusações de que o governo central do Sudão havia instigado uma grande proporção desses incêndios eram proeminentes entre os activistas núbios anti-barragens, e o facto de que um de nós, Mohamed Salah, pertence a esse grupo teve implicações na forma como abordámos e analisámos a nossa pesquisa. O facto de ambos nos termos oposto ao regime de Ingaz também foi motivo de reflexão.

A fim de lidar com as complicações metodológicas que se seguiram, socorremo-nos dos debates académicos sobre abordagens de pesquisa e métodos para o estudo das relações espácio-temporais com diferentes ambientes e a produção de evidências no âmbito dessas relações. Identificámos as entrevistas a pé, uma forma de trabalho de campo perambulatório, como técnica adequada para pensar essas complicações, visto que combinam o processo de distanciamento da entrevista — como uma conversa destinada a criar uma distância reflexiva temporária do fluxo de práticas sociais, a fim de as observar— com a exposição ao familiar, no sentido dos caminhos percorridos inúmeras vezes. Após reflectir sobre os múltiplos contextos disciplinares em que essa técnica tem sido discutida, como antropologia, estudos de memória, sociologia ambiental e geografia humana, apresentamos exemplos de estudos

de caso de eventos relacionados com incêndios que a utilizaram como parte do processo de pesquisa. Na nossa apresentação de entrevistas a pé, também usamos e reflectimos sobre diferentes técnicas de visualização e ilustração, incluindo fotos geo-referenciadas em combinação com transcrições editadas ou comentários auto-reflexivos. Em seguida, oferecemos revisões mais sistemáticas das interpretações que foram apresentadas durante essas e outras entrevistas no decorrer da nossa pesquisa.

Como resultado, o nosso artigo indica as diferentes maneiras pelas quais os proprietários das tamareiras afectadas avaliaram o que tinham perdido exactamente e se o incêndio poderia ter sido intencional. As respostas complexas a essas perguntas destacavam processos sociais e políticos em torno das palmeiras. O status económico e sociocultural das tamareiras mudou entre as populações residentes, especialmente desde a segunda metade do século XX. Estando inter-geracionalmente ligadas às famílias através de relações de propriedade e memórias compartilhadas, as palmeiras e sua mudança de status podem simultaneamente representar as raízes e a imobilidade de origem, ou sua perda.

Quando se olha para a paisagem sócio- ecológica e o lugar que nela ocupam os incêndios de tamareiras, encontram-se, portanto, várias camadas sobrepostas no conjunto de danos causados.

Ao mesmo tempo, as tensões políticas em curso significavam que muitas das interpretações sugeridas por proprietários de tamareiras, activistas e funcionários governamentais tinham um impulso político, quer fosse acusatório ou defensivo, muitas vezes coincidentes com hostilidades pré-existentes. No entanto, constatámos que, apesar da dinâmica tensa e antagónica na região, essas interpretações não poderiam ser simplesmente inferidas a partir dos vários pontos de vista e interesses nessas dinâmicas. As conversas abertas com proprietários de tamareiras, que geralmente partilhavam a oposição ao então partido no governo (o PCN), revelaram múltiplos e diferenciados processos de interpretação. A justaposição de seus argumentos com declarações de um membro local do PCN atestou a existência de pontos de convergência no meio do seu antagonismo político em torno de noções comuns, como "negligência e "mudança climática". Um mapeamento cuidadoso dos limites dessas ideias compartilhadas parece-nos constituir um valioso princípio metodológico e mediador.

Em conclusão, confirmamos a importância da exposição como um elemento crucial da pesquisa ambiental, especialmente quando se relaciona com questões em que não são apenas os nossos interlocutores, mas também nós próprios quem está investido, seja ou não seja, emocional e politicamente. Ao mesmo tempo, isto também requer uma análise altamente reflexiva e crítica dos materiais de pesquisa subsequentes e suas fontes, a fim de podermos navegar através das complicações metodológicas intrincadas que esse tipo de processo de pesquisa gera.

Palavras-chave: Ecologia política, incêndios florestais, estudos de conflitos, entrevistas a pé, Núbia, Sudão.

Walking on Fire

Perambulatory Fieldwork and Shared Interpretation of Date Palm Fires North of the Third Cataract of the Nile (Northern State, Sudan)

Enrico Ille* & Mohamed Salah**

* Institute of African Studies, Leipzig University. https://orcid.org/0000-0003-3669-1731
** Center for Environmental and Social Studies Sudan, Université Paris 1 Panthéon-Sorbonne.

Data related to this article:
"Plants and political ecology in Sudan." https://zenodo.org/communities/plant-ecology-sudan/
This collection includes data and datasets cited and used in this article, among them images, texts (transcripted interviews, reflective notes), weather data and georeferenced data from the study area. This material was produced or collected by Enrico Ille in 2016 and 2017 in frame of research on socio-ecological changes in the region around the Third Nile Cataract.
Resources related to this article: General map of the case studies. https://umap.openstreetmap.fr/en/map/walking-on-fire-perambulatory-fieldwork-and-shared_836451.
Map data: https://doi.org/10.5281/zenodo.7372795.

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Introduction

There have been numerous fires in date palm groves in the areas adjacent to the Nile in northern Sudan (today's Northern State), and the number of affected palms appears to have increased since the 2000s. There are multiple interpretations circulating among the resident population of the source and cause of their eruption, from the effects of climate change to negligence on the part of farmers to arson. Because the increased frequency of fire events coincided with the peak of the political opposition to the hydropower dams planned by the central government to be constructed in part of this region,[1] members of this opposition movement also claimed that government agents were behind the fires as part of the government's violent response to the opposition.[2] This indicates a process in which the reconstruction and interpretation of destructive ecological events are intertwined with—and partly motivated by—political stances, a dynamic we will look at more closely in this article.

1. This concerns most of all the areas around Dal and Kajbar in the Nile Valley south of the Aswan High Dam (see overview in https://archive.internationalrivers.org/campaigns/kajbar-dam-sudan [archived]).

2. For relevant literature on the role of state violence in hydropower politics in contemporary northern Sudan, see, for instance, Abd Elkreem (2015; 2018); Abdullah & Rahman (2021); Ali et al. (2019); Zeitoun et al. (2019); Hänsch (2019; 2020); Hashim (2010); Schmidinger (2017); and Verhoeven (2015; 2016).

Our attempt to relate critically to these interpretations confronted us with two related methodological complications. In the first place, we have to ask what bearing political positionality had on the collection and appraisal of evidence for the different reconstructions of the fire events by the actors involved, such as date palm owners, political activists, journalists and government representatives. To this end, we trace the interpretations of these fires that developed during our observation period in this region (2016–7),[3] and discuss how they relate to the wider political context of resource distribution in Sudan. This context includes not only conflicts over large-scale development projects such as hydropower dams and the subsequent displacement of populations, as was the case in this region in the 1960s during the raising of the Aswan Dam and in the 2000s during the construction of the Merowe Dam; it also involves more general struggles over the centralised control of natural resources, which goes back to the country's colonial past (before 1956), has fuelled several civil wars (1955–72, 1983–2005, and since 2011), and escalated to new dimensions under the Islamist Ingaz regime that came to power in a military coup (1989–2019).[4]

At the same time, localised dynamics need to be considered. Apart from possible environmental changes such as increasing dryness and heat, we have to look at socio-cultural and economic developments. Since date palms have been an essential part of the region's cultural history and social life,[5] their destruction goes beyond a mere loss of natural resources, whether or not a fire is started intentionally (see case study 3). However, the recurring nature of the fires also speaks to more recent changes in the economic status of date palms in society, which have reduced the level of care and fire protection many of them actually receive, even though they may have retained their symbolic importance (see "Pre-walk interview 1"). Both aspects can trigger concerns about losing control over one's homeland, whether through violent dispersion or general societal developments. We will describe these concerns in greater detail in the case studies (see especially case study 2).

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3. This is an ongoing issue, though, as witnessed by large fires:
— on Saï (June 2020: Sālī cUṭmān, "Al-ʾihmāl yushacal ḥarāʾiq al-naḫīl fī shimāl al-sūdān," *Asharq News*, 21 June 2020. https://asharq.com/ar/2ldqtUAmLQFik5iFY43DjC-شمال-في-النخيل-حرائق-يُشعل-الإهمال/ [archived]);
— in Nilwa, Halfa Locality, during harvest season (October 2020: "Ḫasāʾir kabīrah fī ʿashjār al-naḫīl bi-ḥarīq bi-qaryah nilwah bi-maḥaliyyah ḥalfā," *Al-Mashad Al-Sudani*, 24 October 2020. https://almashhadalsudani.com/sudan-news/24685/قضايا-وحوداث/ [archived]);
— in Gargud (2-3 April 2021: "Ḥarīq yasabab ḫasāʾir kabīrah bi-qaryah qarqūd bi-maḥaliyyah dalqū wa ġiyāb tāl lil-masʾūlīn," *Nubokeen*, 3 April 2021. http://nubokeen.com/web/حريق-يسبب-خسائر-كبيرة-بقرية-قرقود-بمحل/ [archived]).

4. How a context such as this is perceived by different actors is part of the analytical problem we discuss. From our own perspective, we consider works such as Elnur (2009) or the writings of Sidgi Kaballo (2020a; 2020b) to be good references on Sudan's political economy.

5. This history has been reviewed most thoroughly in several publications by Sudanese writers, such as ʿAbdallah (1995) and Asʿad (2015). Shorter depictions in English can be found, for instance, in Khairi (2015) and Ryan et al. (2021).

Second, we had to reflect on the methodological implications of reconstructing destructive events as researchers while also being interlocutors in the societal debate that surrounds them. While we have striven to arrive at a distanced assessment that integrates both natural and social scientific approaches for the purposes of making our contribution to this debate, our interpretations are also born out of the perspectives of a politically interested (and invested) academic (Enrico Ille) and an environmental scientist and activist, chemist and farmer from the study area (Mohamed Salah). Since we were both involved in the situation to different degrees, the political dimensions of reconstructing events—the politics of evidence, so to speak—also included us as part of an ongoing investigation in a public forum.

This article is the intermediate result of an ongoing discussion between us on date palm fires that began when we first met in February 2017, Enrico Ille as Urgent Anthropology Fellow,[6] and Mohamed Salah as an environmental scientist and activist who hails from the area. At this point, the date palm fires became an issue in Enrico Ille's ethnographic project on socio-ecological changes in the region,[7] and the interviews presented in this article (case studies) stem from his research. Mohamed Salah followed the issue both as member of the anti-dam movement and as a personally affected member of a family from the island of Saï, one of the sites discussed in the analysis. He collected information on fire events more systematically across the region, as well as environmental data, and together with Enrico Ille shaped the analytical co-reading of these materials with photos, GPS data and satellite imagery detailing the position and extent of the fires (see the "Interpretation" sections).

While we arrived at the issue from very different angles, we share some degree of positionality: like most of our interlocutors, we are male, middle-class adults who were critical of, and to very different degrees openly opposed to, the Ingaz regime in Sudan that was overthrown in April 2019, but whose influence and power still lingers. We have both had a post-graduate education and share a sense of scepticism of mono-causal accounts of the date palm fires, whether as natural disasters or as politically motivated arson, and are influenced by the conviction that we can contribute to the societal debate through a more highly differentiated analysis.

6. The Urgent Anthropology Fellowship is a research grant privately funded by anthropologists to support anthropological research in areas where cultural practices are under threat due to radical changes, often of a violent nature. See https://www.therai.org.uk/awards/fellowships/urgent-anthropology-fellowship [archived].

7. These changes are the subject of an ongoing research project whose results are still under publication (see https://therai.org.uk/awards/past-awards/dr-enrico-ille [archived]). A similar study has been conducted by Karin Willemse, who was Urgent Anthropology Fellow at the British Museum and the Royal Anthropological Institute (2014-2016) researching into date palms as a "living Nubian heritage" (paper presented as part of a seminar on 10 May 2016, London, see https://nubianlivingheritage.wordpress.com/seminar-materials/ [archived]). She also contributed the related paper 'The Date Harvest as Taskscape: Enacting the Past and Future of/as a Nubian Community" to the 2016 annual conference of the Association of Social Anthropologists of the UK in Durham on 6 July 2016 (see https://nomadit.co.uk/conference/asa2016/paper/30624 [archived]).

We also believe that our considerations on the various sources of this analysis are of significance beyond this debate, especially in the field of environmental knowledge. A wide range of studies have addressed hierarchical relations between different kinds and methods of environmental knowledge, especially as regards debates on indigenous or traditional knowledge in relation to science as it developed in the Global North, and the overarching issue of epistemological pluralism.[8] However, we see a benefit in combining the general questions of "better" knowledge with the observation of its practical application as "better" evidence. This is an assessment of a political process, as we are less interested in establishing a normative statement on what we ourselves consider "better" but want to show some of the ways in which evidence becomes relevant in social practice. It therefore becomes not only an observation of different kinds of evidence-making—scientific, legal and political—but also how they relate in the formulation of a position *vis-à-vis* an actual event or conflict.

Our intention is not to present a systematic contribution to the debate on politics of evidence, but we do make an attempt at what Ginzburg termed "understanding society through clues" with his conjectural paradigm that reality is for the most part opaque in its complexity—for society and researchers alike, we might add—and must be investigated through "certain points—clues, signs—which allow us to decipher it" (Ginzburg & Davin 1980, 27). Disruptive events such as date palm fires are not just an invitation to collect, to use Ginzburg's terms, the traces they leave, in the sense of both clues to what happened—the traces of evidence—and their aftermath and repercussions—the traces of injury. We are also invited to think about what narrative threads they follow, the general direction in societal developments and conflicts, and how they affect these threads, "the trail they leave" (Ginzburg 2012, 1).

We use this foundation to illustrate an investigative process that seeks to accommodate methodological complications through a co-reading and shared interpretation of the sources we collected. We approach this interpretative work by means of an account of walking interviews and more broadly of perambulatory fieldwork in the areas where date palms were burned, as a technique of situated exposure to the traces of the events (see "Methods"). What might be seen as a variation of the conventional crime scene visit is not concerned so much with the official process of establishing a *legal* crime: we revisit the process by which a fire event is socially reconstructed as a *political* crime or not (see "Interpretation: political violence"). However, this also highlights the social limitations of official investigative processes, for instance where date palm owners declined to lay blame or demand retribution because long-term social relationships were involved. In addition, the explanations we collected were not exclusively focused on human agents, but also allowed for other-than-human causes (see "Interpretation: environmental illiteracy"). Finally, some of our interlocutors made the interpretative effort to

8. See, for instance, the chapters on governance in reference works such as Thornton & Bhagwat (2020), or critical anthropological studies such as Ellen et al. (2005) and Sillitoe (2007).

contextualise the fires in historical development, as a loss in an extended temporal sense that we ourselves were therefore prompted to consider (see "Interpretation: historical disconnection").

Accordingly, we have structured the article around three case studies using perambulatory fieldwork, including pre-walk interviews and walking interviews and self-reflective walks through the burned areas. They develop the context of date palm fires incrementally, introducing different aspects and perspectives with each walk. This corresponds to a non-structuralist understanding of context, in which a given situation is not predefined by structural conditions, but co-constitutes them through action.[9] Similarly, our own process of understanding is inductive, where our research process moves forward through the interpretative reflections that are part of the social production of meaning attached to these events.

We begin with a general reflection on forest fires as a research and administrative problem to pave the way for references to the practical and material limitations we encountered during the walks and interpretative sections. This is followed by a brief outline of our own understanding of perambulatory fieldwork and walking interviews. We continue with a presentation of the interviews, which we discuss in relation to interpretations of date palm fires as a social and political problem. We also use one of the pre-walk interviews to identify the intellectual and emotional challenge of being "put on the spot" when interlocutors push towards a specific framing, or even to a conclusion, and the methodological implications of how this challenge is addressed in that moment (see "Pre-walk interview 2"; see also "Methods").[10] We conclude with a co-reading of the methodological, socio-ecological and political concerns in order to highlight the exploratory nature, potential and limitations of the walking interviews.[11]

Research problem

Forest fire ecology is a broad and complex field of study, not the least due to the breadth of the contexts in which fires occur. In their most biophysical sense, fire studies break down the process to the fundamental dynamics of heat accumulation and heat transfer, the elements that are conducive to or inhibit their spread, burned areas and trees and their characteristics, etc. (Johnson and Myanishi 2001; Cochrane

9. Situational analysis, for instance, calls for seeing "context" out of the now, meaning that "context-as-such" does not exist, but is a reference to discourses and social worlds that intertwine in the particular situation (Clarke 2005).

10. This is an instance of the need to take sides in the field, as has been widely discussed in the anthropological literature on conflict situations (see, for example, Schlee 2004), as well as in disciplines such as criminology and the sociology of law (see, for instance, Ellefsen 2017).

11. We would like to thank our two anonymous reviewers and the editorial board of *Sources* for their valuable and extensive feedback on an earlier version of this article. Important clues on literature and interpretations were also provided by Richard Rottenburg and Al-Ḥassan Hāshim. Most of all, we wish to thank our hosts and interlocutors, who generously shared their observations and interpretations with us.

2009, chapter 2). They not only capture the complex effects of fires on landscapes, including their regenerative and transformative function (Wallace 2004), but also relate them to broader climatic and atmospheric dynamics.

A number of these dynamics, such as hot, dry winds like the Sirocco in the southern Mediterranean basin (Belhadj-Khedher et al. 2020), are crucial to the fire landscape we will discuss; however, this kind of differentiated biophysical assessment and discussion was mostly absent from the political discourse we looked at. Rather, the interpretation of date palm fires and how they start examined the intended and unintended consequences of human fire-making, which is what we focus on below.

A central area of forest fire studies that concerned (human-)intentional fires is their different forms and the purposes for which fire is used by humans in or around forests and other groupings of trees.[12] In order to understand the uses of fire in this specific context, local fire regimes with fire-supportive and fire-deterrent elements have been studied and have revealed how different blends of intentional and unintentional, and maintenance and transformative fires have emerged (Coughlan 2015). These regimes range from fairly loose and opportunistic slash-and-burn practices to sophisticated, ritualised systems such as the intricate link between bush fires and the kinship-based *gurrutu* system in Australia (Verran 2002). This integration of social and biophysical approaches in wildland fire studies is far from being in the mainstream, however (Bosomworth et al. 2015), but there is a body of literature that argues for a transdisciplinary fire ecology that pays attention to human agency and decision-making, knowledge and practice, and the history of socio-ecological dynamics (Coughlan and Petty 2012; Sheridan et al. 2015).[13]

The literature on integrated fire management generally uses these transdisciplinary approaches, but differs on how far they address the conflictual dynamics around the question of "what we are protecting" (Roberts 2013). This reveals very different presumptions about the nature of the governance involved in these dynamics. The presumption that there is a basically benevolent relationship between predefined actor groups such as communities and governments tends to orientate the debate towards the best way to achieve a protective objective, for instance through biodiversity conservation (Shlisky et al. 2007) or fuel management (Sheridan et al. 2015). It is then about "shared responsibilities" and "trade-offs" and how they are divided, between government and citizens, for example (McLennan and Eburn 2015). Post-fire responses can also be considered in terms of loss and compensation where "the effect of the fire on the flow of goods and services depends mainly on the use of the forest before the fire (i.e., which goods and services it provided), fire

12. Our article does not differentiate between forests, groves, plantations, and orchards, as the genealogy of these groupings are not an analytical point of interest here.

13. Verran (2002) is one of the few studies that looks at the role of environmental and other scientists in debates on fire management and the formulation of policies, especially *vis-à-vis* fire knowledge that has not been produced from inside the scientific establishment.

severity and size, and management measures taken before (prevention), during (suppression) and after (post-fire measures) the fire" (Mavsar et al. 2012, 47).[14]

In a governance environment in which administration through formal institutions is considered to be the norm, their "failure to meet social needs effectively" (Morehouse et al. 2011, 350) and the subsequent "informal activities" and institutional contradictions can be the focus. This may result in a shift to community-based solutions such as community fire brigades (see, for example, Sheridan et al. 2015, 405) or other forms of community-based fire management (FAO 2011). A perceived partly state-driven, partly change-driven decline in fire management systems may form the basis for a call to reconsider the use of fire as a useful part of natural resource management (Russell-Smith et al. 2009). However, even taking an ultimately managerial outlook—for instance by discussing fire as a landscape management tool—a contradiction in the aims rather than the methods becomes the concern of more critical analyses of state-citizen relations, such as between state-centred anti-fire policies and local cultivation practices (Kull 2004).

This leads towards a political ecological concept of fire governance. If one goes beyond the customary understanding of governance as being about state institutions, for instance, "the institutions and rules that determine how fire is used in an area, and how rights holders […] participate in these decisions" (Walters 2015, 276) become relevant, as does "why, how, and in which political contexts fire regimes change" (Walters 2015, 283). Put even more succinctly, "disagreements or conflicts over alternative fire regimes and worldviews, as well as over prevention, disaster, and postfire policies, are analyzed as the effects of competing visions of different social actors over desired territories and their use" (González-Hidalgo et al. 2014, 1015).

What brings all these studies together, however, is the presumed benevolence of fire use, in the sense that causing the destruction of human life and property is mostly accidental, and not the aim, when starting a fire. The situation is different in studies on incendiarism. Historical research on arson, for instance, has revealed how fire was used as a form of peasant resistance similar to sabotage, "as a final act of defiance by rural peoples who have lost control over the resources on which their subsistence has traditionally depended; as a clear signal of imbalance in the cultural-ecological equation; and as a symbolic gesture of political protest" (Kuhlken 1999, 360). Fire has also been studied as an anonymous and effective weapon, as an "asymmetric threat" where large-scale destruction can be caused with little effort, and it continues to be used in this way (Deshpande 2009). From a national military-defensive perspective, this becomes an issue of acts of "pyro-terrorism" against the powers that be, although a relational definition as "incendiary attacks […] to advance political or social objectives" (Baird 2005, 2) does not preclude the possibility that these same powers that be are themselves the pyro-terrorists.

14. This can include a consideration of social dynamics that hinder managerial tasks such as forest management, for instance a lack of sanctions due to "[l]imited jurisdictional capacity and fear of reprisals" (Sheridan et al. 2015, 402).

Invariably, interpreting fires as arson for political purposes raises basic epistemological difficulties, as they are naturally sparingly documented or not documented at all, and any later accusations are themselves part of the political process (Dillinger 2006). This has been documented most clearly in the case of the huge fires in Indonesia (Kalimantan 1982–3, 1997–8). The "fierce political battle […] about who was to blame for the disaster" (Barber and Schweithelm 2000, 12) saw a government blaming everybody else—small-scale farmers, probably communists, and nature—while also appointing a major investor in the forestry and agribusiness industry in place of a Forestry Minister who had raised criticisms. The debate also crystallized new voices in the public debate on natural resource extraction in the country. The immediate battleground of claims and counterclaims was quantification of the areas affected: a fixed and unsubstantiated number of 520,000 hectares was claimed by the government, compared with the 5.2 million hectares identified by remote sensing and checks on the ground by the Integrated Forest Fires Management Project in East Kalimantan and actively concealed through censorship (Barber and Schweithelm 2000, 12–4).

However, this numbers politics was also only one side of a complex struggle. Kalimantan was immersed in existential struggles over diametrically opposed visions for using its land: highly polluting gold mining with mercury in the Meratus Mountains, failing rice harvests for small farmers and government schemes for one million hectare rice paddies, unbalanced blackwater swamps used by water buffalo herders, etc. A local resident has been quoted as summarising the situation as "the end of Kalimantan" (Tsing 2005, 23), an apocalypse during which one can only stand by and watch it happen. Meanwhile, the debate on who started the fires developed its own dynamics of spreading through stories that redrew a landscape of suspicions and politically motivated smokescreens (ibid., 43).

This reflects both a drawing and redrawing of boundaries, not just in a political sense, but implicitly also among socio-ecological categories such as settlement, agriculture, cultural landscape and wilderness, and their relation to humans as (dis) organizing agents at the so-called wildland-urban interface. When we look at fires, therefore, we see that the line between "landscape fire" (McKenzie et al. 2011) and man-made fire is not only blurred, but also part and parcel of investigative processes that relate this line to intent, and thus to responsibility.

Methodology

The data collection technique we made central to this article—walking interviews—occupies a specific niche in the context of mobile methods in social and environmental research. In the following section, we will locate this technique in ongoing methodological debates. Our aim here is not to redraw or relate to these debates systematically, but we do want to pinpoint our understanding of the methodological location and the implications of the walking interviews to our research, in which they form part of a multi-evidence strategy that looks at landscape from the

perspective of people for whom an environmental event changed the familiar into something less familiar, or even unrecognisable,[15] and which are thus "part of a complex of research practices" (Pink et al. 2010, 3), rather than a specific type of method that defines how research is done. In this sense, our contribution is part of ongoing attempts to move towards methodological triangulation (Flick 2018; Flick et al. 2019) through both complementary usage and the mutual counter-checking of methods.[16] The exclusivity of disciplinary methodological conventions gives way not only to transdisciplinary approaches but also to playing off the blind spots of different approaches or weighing them against each other, as an instance of "self-reflective objectivism" (Rottenburg 2009, xxviii).

Perception

Integrating perception and experience into the research process and analysis is a continuing challenge for the social sciences, and treating walking "as a research method" (Pink 2010, 332) is one of the areas that has been proposed and explored in order "to understand the relationships between people, spaces and social worlds" (Bates & Rhys-Taylor 2017, 8). Much of the long-term ethnography has always required researchers to be light on their feet, and the genealogy of perambulatory research practice is widely ramified, for example as a normal task for naturalists and other explorers (Heneghan 2018). There is, therefore, an argument that a widespread "disinclination to mix biographical information with scientific results" (Heneghan 2018, 476) leads to accounts that suffer from sensory impoverishment and are "forgetful" of the embodied experience of being and discovering "somewhere."[17]

Another train of thought was more concerned with the dynamics between researchers and participants during shared walks, especially if the walk is viewed as an alternative or enhancing interview technique. Will being outside—even more if the "outside" is the topic of the interview—"offer deeper social meanings" compared with the "more detached emotional distance" of a sedentary indoor interview (Hitchings and Jones 2004, 10, on gardening)? Will reflections on and the analysis of an embodied experience allow "an unhurried observation of the interplay between sensual and objectifying modes of performance as actual happenings" (Lorimer & Lund 2004, 131–2, on quantifying mountains)?

15. "Interview walks" of this kind have been used, for instance, for the "interpretation of the landscape after […] wildfire" (González-Hidalgo et al. 2014, 1017).

16. We share the perception that this builds, but also reinterprets, grounded theory and its principle of constant comparison, "a process of comparing data sets and types of data to identify linkages, gaps, similarities, and differences" (Chang 2017, 611).

17. Travellers' accounts of naturalists and other mobile observers are one instance when both have often—explicitly or implicitly—been reflected side by side. In anthropology, the so-called writing culture debate has reinforced this presence of the researcher in the text, which pervaded ethnographical accounts to differing degrees of visibility and critical reflection. Still, Ingold and Vergunst bemoaned the fact that the act of walking during ethnographic research is mostly left out when reporting results (Ingold & Vergunst 2008, 3).

Those who have included co-walking as one of their research activities ultimately have done so for a wide range of epistemological—and also practical—reasons, resulting in a diverse landscape of perambulatory methods: that is, methods that are influenced or determined by being in a specific state of mobility, in this case walking. Based on their structural rigidity, these methods can be broadly categorised: for instance, into bimbling—a spontaneous walk-and-talk with no predefined route or topic; go-along interviews, which shadow a routine route with or without prepared questions; participatory walking interviews, which involve free movement in locations relating to the topics being investigated, using participants as experts and guides; and the docent method, with specific routes for walking interviews being planned and discussed during pre-walk and post-walk interviews (Kinney 2017, 2; Chang 2017).

In addition, the assorted modalities of specific walks in specific landscapes have an impact on the possibility for and conditions of any conversations that take place. The texture of the environment may feature in, or even fertilise, the conversation, but an uncritical or unreflective celebration of this as "more natural" or as "freer talk" forgets that "walking and walker's bodies bring with them their own politics, cultures, histories, habitual responses and lived experiences that must be taken into account" (Macpherson 2016, 426). There are also obvious physical conditions that determine "the rhythm and style of the walk, the walk route terrain and distance and the fitness and embodied dispositions of the walker" (Macpherson 2016, 427).[18] These have to be taken into consideration as part of the analytical process, especially if a relational, processual understanding of the landscape underlies it, but the physicality of the process also imposes its own limits on the conversation, for instance when challenging terrain forces (or enables) concentration on navigation, and the dangers of moving through places can inscribe themselves on the researcher—or the participant—in the form of injuries (Macpherson 2016, 428–9). Another rarely considered aspect is the influence of affective commonality, for instance the change of emotional and physical disposition brought about by the release of endorphins as a physical response to the act of walking (Macpherson 2016, 430, quoting McCormack 2007).

Representation

The debates on perambulatory methods have also struggled with issues of representation: namely how to translate the research process into communicable media, especially beyond a purely textual representation. Proposals have been made to visualize the spatial information obtained from perambulatory research more clearly, "to more directly connect what people say with where they say it" (Jones et al. 2008, 2). This refers especially to the absence of mapping and other orientation techniques in many works on place-specific interviews, including video productions that, if there is no spatial reference and if they are not shot at the same time as

18. These physical conditions also define the exclusionary tendencies of relying on walking, as it is a form of mobility that is not, or not equally, accessible to everybody (Parent 2016). At the very least, there are age and body-specific characteristics of walking that need to be taken into account (Curl et al. 2018).

the other tasks, do not necessarily provide clarity (Jones et al. 2008, 4). Among the suggested techniques are participatory mapping or sketches of node-to-node walks (see, for example, Emmel & Clark 2009, 14).

The most relevant technique in this case is the so-called spatial transcript, which integrates the spoken word and the location by relating the recorded interview portions to GPS data (Evans & Jones 2011; Jones & Evans 2012). This technique was developed in an urban planning environment, and while the potential for using it in the context of participatory GIS was noted, it was also acknowledged that the non-representational character proposed by many of the works based on perambulatory methods is somewhat lost by the use of GPS data, which has its own ambivalent implications (Evans & Jones 2011, 851; Jones et al. 2008, 7–8). In fact, it has been argued that qualitative GIS illustrates rather than analyses, and ultimately uses "rather conventional, neo-Euclidean, "physical" conceptualisations of space and location" (Merriman 2014, 179).

Although this latter aspect will be mentioned again in the following section, the question of (non-)representational approaches should be highlighted now. The core of non-representational approaches is an attempt at "moving away from the Cartesian divide of object and the self," from "landscape as a representative object" that can be read like a text (Harrington 2016, 25).[19] However, the distinction between a right and wrong "reading" of environments—environmental literacy, so to speak—remains at the core of many scientific and non-scientific forms of knowledge production, whether for the purposes of exploration or for intervention. In this sense, the debates around walking as a method reflect very basic disputes about what qualifies as good, or valuable, or insightful, or engaged research, and, by extension, the place of research activities in wider society *vis-à-vis* other forms of knowledge and mediated productions, both textual and non-textual.

Participation

A fundamental difference in how research is approached can also be seen through the juxtaposition of a mining and a travelling metaphor (Clarke 2005, 166):

> In modernist mining, knowledge is buried, waiting to be uncovered by human research via the individual interview, purified through transcription, and then conveyor-belted to validity via correlation with others. In postmodern traveling, knowledge consists in heterogeneous discourses gathered by the traveling researcher, entering into conversations, noticing sites and images along the way, gathering stories and available "collectibles"—stuff of all sorts.

In both cases, entering an environment with others where there is a low level of control over both inevitably increases the complexities of doing observation and conversation at the same time. Looking at this the other way around, the inevitable messiness of the research process can only be eliminated by increasing control over research participants as "experimental subjects" and over their environment as a

19. This also implies acknowledging and giving space to "forces and beings other than humans in the world" (Harrington 2016, 26), including spiritual and otherwordly relationships humans have formed.

laboratory "clean room." Between these extremes, there are many ways of dealing with messiness and "the tension between formalization and intuition" (Flick 2014, 12), but they are inescapably linked to the power relations between researcher and participant.

Perambulatory methods have been highlighted as at least opening up the possibility of a more symmetrical "research moment," especially in case of the more unstructured walks (Anderson 2004, 260):

> This practice of talking whilst walking is […] useful as it produces not a conventional interrogative encounter, but a collage of collaboration: an unstructured dialogue where all actors participate in a conversational, geographical and informational pathway creation.

For some authors, this can lead not only to a co-construction of research, but also to questioning or even dissolving the researcher-participant binary (Moles 2008, 37) and to new performative forms of doing research, such as through collaborative art production (O'Neill and Hubbard 2010).

Whatever the final destination may be, walking *with* establishes a multisensory moment of co-presence and sociability that follows "a particular style of movement, pace and direction" (Lee & Ingold 2006, 69), where one's eyes are on the path ahead, and there is only rarely eye contact (ibid., 79). Here, having a conversation implies the need to find a shared rhythm, physically and mentally, while also being subject to the same conditions of moving over the ground.

The implications of this "grounding" also become clear in a comparison with techniques where the same ground is covered from a distance, with little or no contact with those who are walking there, far from the "'micro-geographies' of spatial relations and meaning, where multiple scales of social relations intersect in the research interview" (Elwood & Martin 2000, 649). This lack of "ground truth" (Pickles 1995) has been central to critical discourses on GIS and GPS, for instance, and to their relationship with political processes and governance (Propen 2005). For one thing, it concerns critiques of GPS-based GIS opposed to the kind of knowledge production GIS embodies as a "polemical (discrete, fixed, overcoded) image" (Leszczynski 2009, 356) that claims to show the world as it is and makes it (instrumentally) available for exploitation. Critical GIS, on the other hand, does not reject the technology: it questions the ends to which it is being used, and how other uses might be possible (Leszczynski 2009, 354–6).

At this point, all these remarks serve mostly as a reminder that moving through specific environments in a certain way during interviews can heighten the participants' physical, emotional and social vulnerability, which at the same time increases the researchers' ethical vulnerability (Hibbert et al. 2014), especially if the interview itself joins a direct confrontation among conflicting social actors or creates a conflictual role for the researcher (who may also be a friend, activist or caretaker, for example).

The type of guidance established before and during the walk is thus not just about the distribution of knowledge production, but also about the distribution of

responsibility. This involves the route to be taken, but just as much the "micro-politics" of the walk itself, where questions of power are multiplied: not only active and passive elements of the conversation and shifts between introverted walking and extroversion by solicited and unsolicited statements, but also the movement itself between paces, leading, stopping, turning, etc. (Palmgren 2017, 2). In this sense, the range of possible perambulatory methods presents a "continuum based on who orchestrates the observed mobility, participants or researchers," from the participants' usual routines to the researchers' pre-defined tours (Kusenbach 2018, 350).

In this way, the creation of "social synchronicity" (Hodgson 2012: 20) casts the research process into the complex conditions of mobility and social connectivity, the conditions of becoming situated somewhere with somebody.

Positionality

This situatedness of the walk is highlighted, or even becomes essential, when it takes place amidst tensions or open conflict in the form of practices of discrimination and segregation, or violent confrontation. This can be beneficial for a more symmetrical relationship between researcher and participant, not necessarily in the sense that it eradicates positionality and the various vulnerabilities, but by conveying a more immediate sense of what it means to be in a certain situation and/or position. Rather than removing the researcher's focused interest—which can overlap with the participant's interest to a greater or lesser extent—it potentially leads to moments that are "*not* just about researcher questions and participant answers but also about a 'more equitable' and dialogical line of inquiry" (Brown & Durrheim 2009, 926).

This can take the form of heightened emotional and physical involvement, for instance by being attacked at the same time, even if not to an equal degree. It is here that non-ethnographic approaches to perambulatory research come closest to the objective of being "thrown in" or "exposed" that characterises participant observation (or actually observant participation) and to the invitation to emotions, entanglements and engagements that underlie so-called alt-meths (Griffin 2021, 46).[20] Another implication is that participation in conflictual dynamics always requires research to be positioned, even if no co-construction of the research is intended. In cases where parties to a conflict are involved, this means taking, or at least mediating, sides, and thus qualifies as an intervention. Whether this occurs explicitly or implicitly, documentation and representation increase the visibility and perhaps also the "volume" of certain positions and standpoints.

The temporal dimension of this place-making reminds us that methods that only seize the here-and-now overestimate not only the importance of the moment but

20. The highly relevant example given in this text was a walking exploration in the context of a workshop in Chile that took place during "acute conflicts between locals and government forces, where emotions were running high as a function of the visceral political confrontations that were occurring and that were leading to the murder and maiming of locals by government forces" (Griffin 2021, 45).

also the researcher's ability to grasp it, thereby disregarding an analysis of any elements that are not perceptibly present but still have an impact. Walking together through a landscape adds to each individual's topo-(auto)biography in very different ways, and also induces more or less shared sensibilities and common notions, "the ambiguous middle ground of the *sensory commons* through which human and planetary *coexistence* is coordinated" (Murray & Järviluoma 2020, 235). In addition, the narrative exploration of a place results in an "interweaving of personal biography and individual experiences with collective (social) memories and spatial histories" (Clark and Emmel 2010, 5), an act of story-telling through spatial references.

In the sense that this is still a mediated communication, however, co-presence and physical proximity during perambulatory conversations do not in themselves qualify as a golden pathway to the "'first-handedness,' closeness, accuracy and authenticity" of others' experiences (Merriman 2014).[21] Long-term residence in a specific place in particular leads to a narrative identification that has been formed and reformed, quoted and "memed" many times over, as experiences of place "are changed and rewritten over time" (Holton and Riley 2014, 64). Residential places are full of "'haunted' sites [that] bring back to life the ghosts of the people, places and events that together form our biographies" (Kusenbach 2003, 472).[22] In places that have experienced radical demographic shifts but were nonetheless witnessed intergenerationally, the temporal layers of people's understanding of the land they have lived on (and maybe owned) for most of their lives (Riley 2010), now hovers between intergenerational continuity (looking back) and intergenerational disconnection (looking forward) (see the case studies below).

This "place responsiveness" takes on a new quality if such spatio-temporal ruptures do not occur over a long period but are manifested in one or several distinct events, such as natural disasters (D'Errico & Hunt 2019). The perceptive and emotional focus suggested, or even driven, by such events may then lead to a conversation that is less about narrative reconstruction in the sense of oral history and more about the traumatic or otherwise disruptive effects of these events on the current state of affairs. Again, this can involve an invitation—or pressure—to join sides in the event that this state of affairs relates to accusations or identifying those guilty of causing, or not preventing or not adequately addressing, these ruptures (D'Errico & Hunt 2019, 7–8).

This latter dynamic is intensified during or in the aftermath of wide-scale violence, and comes close to the ethical and representational complications of war and post-war documentation (Carrabine 2018): What is its role in the ongoing conflict? What does it include and exclude from its view? What does it convey about the emotional and physical content of violence to an audience that did not experience it? Why

21. This adds to the other layers of difference between the participants in the walk who, for instance, cannot easily embody each other's experience in the absence of "shared bodily circumstance" (King & Woodroffe 2019, 1281).

22. This refers to de Certeau's essay "Practices of Space" and its consideration of the "presence of absences" (Certeau 1985).

should it try to do so? How can it avoid presenting "beautiful excerpts," thereby aesthetising death and destruction up to the point of offering decorative spectacles or even the commodification of the suffering of others?

One proposal is to "reconfigure the violence of representation by focusing on the traces of conflict" (Carrabine 2018, 642), the ruins and scars in the landscape, and to balance the detachment of the bird's eye view—whether during remote attacks or during remote investigation—with contemplation of the ruins and the situation of those left behind to live with this landscape of destruction.

Case studies

This is the site at which our case studies are located, but they introduce a further complication: the very nature of the violence and destruction that has occurred is being questioned, and how and why the fires started is being disputed. Were they accidents due to a disjunction between fire-using humans and their environment? Were they an act of political violence perpetrated by the Ingaz regime? Or were these "natural" disasters (or merely events) facilitated by negligence because someone has failed to reduce the fire hazards?

This makes walking interviews akin to crime scene visits, including as an investigation into whether a crime has been committed at all. This is even more the case if crime scene investigation is understood in the sense of an enactment of the production of evidence for use in very specific organisational fields, such as the presentation of police work in courtrooms and the codified legal concepts and procedures they follow (Williams & Wheetman 2013; Wyatt 2014), which also involves social, discursive processes of sensemaking (Brookman et al. 2020). However, we are less interested in ascribing guilt or responsibility than we are in focusing on the processes by which guilt or responsibility is established by those who have been directly affected by the fires.

We can only indicate briefly here how and why so little of such an investigation in the conventional sense of forensics has taken place at the scenes of the fires, but an overview on the political context of the interpretations voiced by participants will touch on this issue, illustrating the need to also consider questions of loss, detachment and disconnection through "controversial or less consensual stories" and "how these interpretative acts came into being: from whom, by whom, for whom" (High 2011, 219).

The analysis that follows is introduced through walks by Enrico Ille around and through three burned landscapes in the study area,[23] accompanied with one exception by conversations with eyewitnesses, and enhanced by unstructured narrative interviews before and after the walks, as well as illustrations based on geo-tagged photos and audio recordings.[24] These interviews and conversations were

23. The spellings of settlement names have been adopted from the Site Gazetteer of the Mahas Survey (Osman & Edwards 2012).

24. The camera was a Nikon 3300 with external Geotagger. The geotagged photos were loaded into the Garmin BaseCamp software, with additional data from OpenStreetMap from 20 March 2021, downloaded from alternativaslibres.org [archived].

conducted in colloquial Arabic by Enrico Ille, who also transcribed and translated them.[25] Parts of the conversations in Nobíín—which were not actively translated to Enrico Ille—were treated as the participants' own communicative space, as the interlocutors were aware Enrico Ille could not understand the language; they were not included in the transcription. All names were changed and identification details omitted, unless we considered that they were necessary for the analysis.

Pre-walk interviews

In the pre-walk interviews, Enrico Ille initially posed questions directed towards a descriptive account of the fire event and subsequently followed the thematic focus chosen by the interlocutors. We present these interviews not as verbatim transcripts but as paraphrases of the translated transcriptions in a continuous text[26] in order to indicate how the interlocutors framed the situation at the beginning of the walk. This established diverse starting points for the walks[27]: The first contained just a brief description of the fire events themselves, but reflected at length on the societal status of date palms before and after the fires, the immediate and subsequent responses to them and the interpretation of the causes. The second immediately plunged into questioning the correct framework for the interview, as the interlocutor insisted on placing the single event within a wider context of systematic political violence against the population of the region. The third interview was heavily marked by the topic of socio-historical discontinuity, as the island of Difoinarti, on which the fire broke out, had only become uninhabited over the course of the last half century.

Walking interviews

The pre-walk interviews are followed by translated transcripts of the recorded walk with (selected) photos and, where available, with audio pieces intended to highlight the additional aspects and observations brought up by the walk.[28] Since the aim was to assess the overall intellectual exchange on interpreting the fire events and their implications, the conversational text has not been reproduced with detailed markers of non-verbal elements (pauses, expressive sounds), apart from an indication of the gaps caused by distorted recordings or a temporary physical distance between Enrico Ille and the interlocutors.

The resulting presentations of the walks differ significantly due to differences in how they were conducted and documented, as this pre-configured the kind of

25. MaxQDA was used to transcribe the audio recordings, with each photo being marked (based on timing and clicking sounds on the recordings) in the transcribed text. The transliteration of words in Sudanese Arabic that have been maintained in the edited transcripts follows the colloquial pronunciation used.

26. Ellipses, half sentences, etc. were changed into a conventional grammatical form during translation.

27. No previous reading or observation had been made by Enrico Ille, unless indicated.

28. The video used in the presentation of walk 3 (Difoinarti) was created from a 360° photo (LG Friends 360 CAM) by using the single image animation tool of the Panolapse software (500 frames).

narrative reconstruction that was possible. The first walk was relatively clearly structured, with a north-south direction along a single path and a detectable correspondence of photo-position-conversation, with the exceptions highlighted in the transcript. Accordingly, a topo-chronological structure was chosen, including audio and audio-visual elements, that precisely followed the trajectory of the walk and the conversation, with geotagged photos taken in between as place markers.

The second walk had no audio recording and mostly took place at a distance from the accompanying participants (who were also different from the pre-walk interview partner). Accordingly, the transcript is a chronological but photo-inspired reminiscence of Enrico Ille's own thoughts and reflections during the walk, with a post-walk analytical process in mind.

The third walk was fully recorded, but the photos were taken at a distance from the conversation, both temporal and spatial, as the interlocutors walked on at their own pace while Enrico Ille took the photos. The script was therefore organised thematically, and the photos are used as illustrations of the aspects mentioned during the conversations. A fourth walk at the third location several months later was recorded, but it was too loosely structured to be presented as an interview, and was therefore reproduced as a combination of images with paraphrased statements and some translated quotes.[29]

These differences in presentation also reflect varying approaches to perambulatory research methods, which were applied according to the social dynamics that developed around the walks rather than pre-planned designs (see section "Participation"). We therefore treated them as part of the sources we analysed when writing the text, which is why both the pre-walk and the walking interviews contain both explanatory and reflective comments on the dynamics and shortcomings of the developing exchange.

Interpretations and conclusion

Over the course of each of the four walks, a number of interpretations came up that we reflected on in the subsequent comment sections, based on additional materials collected and discussed by both authors, including statistics, satellite imagery, public and social media reports,[30] other interviews, documents and writings on the subject. We read the eyewitness accounts against visual and other evidence, as well as more general environmental conditions and political analysis.[31] The conclusion discusses the implications of this analysis for the conduct of fieldwork by (at least partially) invested researchers moving on politically heated ground.

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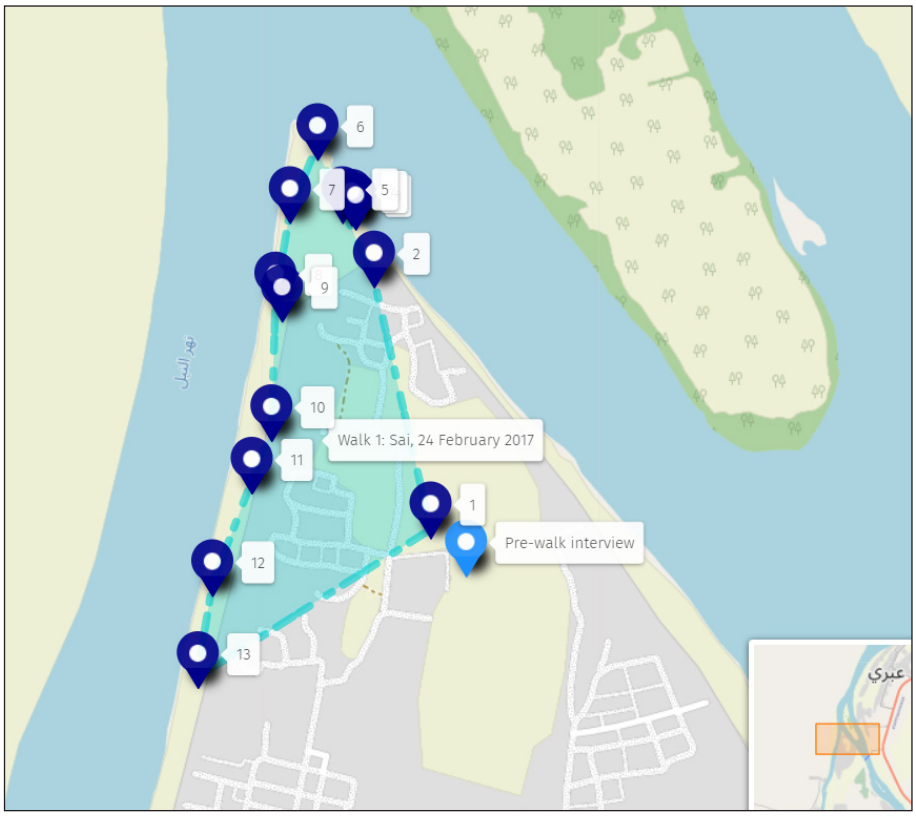
29. Owing to the technical limitations of the online platform that was used, the pre-walk interviews and the walks have no footnotes, but only comments in Italics.

30. 57 media reports (online news, Facebook and other posts) published between March 2016 and April 2021 have been used.

31. The footnotes in all the sections will provide additional aspects and references, if relevant—another layer of analysis.

Case study 1: Saï

Georeference: N 20°45.441’ E 30°19.171’ [geo:20.757350,30.319517]



Case study 1: Saï (map)
See https://umap.openstreetmap.fr/en/map/walking-on-fire-perambulatory-fieldwork-and-shared_836451#16/20.7568/30.3201.

Case study 1: Saï (Satellite view)
Source: Google maps. See Full screen

Pre-walk interview 1: Saï, 24 February 2017 (text): See Appendix
Download PDF.
ArcGIS Storymaps: https://storymaps.arcgis.com/stories/54c0859fe8164ffda5045fd669cdbc16. / On Umap: http://bit.ly/3XSinbR.
Persistent identifier: https://doi.org/10.5281/zenodo.6901021.

Walk 1: Saï, 24 February 2017 (text): See Appendix
Download PDF.
On ArcGIS Storymaps: https://storymaps.arcgis.com/stories/3f476ced55e04ae6a7a9acdd879751b8. / On Umap: https://bit.ly/3Jp8L49.
Persistent identifier (text and images): https://doi.org/10.5281/zenodo.7347398.

Interpretation: Environmental illiteracy

Many aspects of the ongoing interpretations made an appearance here: the ecological conditions of wildfires, the changing relationship to agricultural activities in general and to care of date palms in particular and the government response, which was marked at the least by lack of interest and at the most by an active population displacement campaign.

In the foreground of Faraḥ's interpretation, however, there seems to be a perception of an increasing disassociation between farmers and their environment and a certain lack of environmental literacy, such as anticipating wind direction and taking it into account. As shown in the pre-walk interview, this epistemic gap has not only deeper historical roots but also more imminent implications for the future of human settlement in this area, implications that underlie more politically critical readings of the situation, as discussed in greater detail in the case study below.

As a first step to approaching this disconnection, we looked at the wildfires from a perspective of ecological factors that are not directly influenced by humans. Since this was far from being our methodological homeland, we did this indicatively, based on averaged measurements, and not by modelling microclimatic circumstances and developments. In addition, as we will show, the limitations of the environmental data available to us did not allow for very precise assessments.

Negligence

An implicit starting point for the accusation that the fires resulted most of all from negligence was a wide range of fire usage practices that remained unmentioned in all the interviews, probably as the presumption was that they were well known. Among the many occurrences of fires in the vicinity of date palms—and at the same time among the examples of the variety of ways uncontrolled fires broke out, are the following:

a) burning the soil to "clean" it in preparation for cultivation, in later fields as slash-and-burn or in other open areas:

This involves not just the cleaning of fields, but also the intentional burning of fallen or cut date palms and other dry organic matter to keep the ground accessible and reduce the nutrients for insects and rodents.

Image 1. Burning of date palm trunk on Artigasha, 18 November 2016
Saï, 18 November 2016: N 19.571921° E 30.410242° (geo:19.5719,30.4049).
Photo taken by Enrico Ille.
Persistent identifier: https://medihal.archives-ouvertes.fr/hal-03738092.
Download file: https://medihal.archives-ouvertes.fr/hal-03738092/document.

b) charcoal-making (mostly other trees, but date palm wood is used in brick-making and bakeries due to its long heat retention)

Image 2. Charcoal-making on Urnarti
Saï, 26 November 2016: N 19.55276° E 30.41962° (geo:19.55276,30.41962)
Photo taken by Enrico Ille.
Persistent identifier: https://medihal.archives-ouvertes.fr/hal-03738111.
Download file: https://medihal.archives-ouvertes.fr/hal-03738111/image.

c) making tea or heating food (using dry leaves, including date palm leaves, a central aspect of sociability among farmers during the day; here with a metal enclosure to prevent the fire from spreading)

Image 3. Making tea using dry leaves, with enclosure to prevent fire from spreading on Difoinarti
Saï, 4 March 2017: N 19.94736° E 30.49462° (geo:19.94736,30.49462).
Photo taken by Enrico Ille.
Persistent identifier: https://medihal.archives-ouvertes.fr/hal-03738123.
Download file: https://medihal.archives-ouvertes.fr/hal-03738123/image.

Other outbreaks come about as a result of small smoking fires; consuming green branches that are ignited to keep away insects; smoking branches used to disperse bees during the honey harvest; embers from kitchen fires that are sometimes thrown out while still warm or hot; cigarette ends that remain alight after being tossed away after smoking; lighters or matches used to heat the ends of hoses to connect with pipes; or burning the ends of plastic ropes to prevent disentangling; etc.

Faraḥ's claim that negligence was behind the spreading fires was based on a lack of adequate agricultural and ecological knowledge he perceived. However, as the interview and walking conversation showed, both Faraḥ and Faʾiz saw more behind this than just the inefficiency of individual farmers. They linked it to the composition of the workforce and a more general lack of care of date palms, both of which have to do with migration patterns and generational shifts: agricultural workers now often come from other areas, and have no previous acquaintance

with—and occasionally no interest in—maintaining a safe use of fire; meanwhile, large segments of the population have emigrated and have no opportunity to keep up a close, caring relationship with date palms, and often no interest in doing so.

In other words, this interpretation sees a demographic shift that is reflected in the situation of the date palm environment: occasional workers display a failure to use the old cleaning practices, which involve removing dry matter from palms and the ground. This is exacerbated by a greatly reduced use of this dry matter for roofs, fires, etc. From a cultural landscape point of view, the shift can be seen in the prevalence of disorderly forests in place of intense care for individual trees (in the photograph, this is represented by a well protecting the growth of young date palms):

Image 4. View of date palm forest on Difoinarti
Saï, 4 March 2017: N 19.94647° E 30.49857° (geo:19.94648,30.49857).
Photo taken by Enrico Ille.
Persistent identifier: https://medihal.archives-ouvertes.fr/hal-03745213.
Download file: https://hal.archives-ouvertes.fr/hal-03745213/document.

Image 5. Well from limestone protecting the growth of young date palm in Difoi
Saï, 19 September 2017: N 19.94914° E 30.49234° (geo:19.94913,30.49234)
Photo taken by Enrico Ille.
Persistent identifier: https://medihal.archives-ouvertes.fr/hal-03738157.
Download file: https://medihal.archives-ouvertes.fr/hal-03738157/image.

From an ecological perspective, this may mean a turn to organic re-organisation, to cycles of opportunistic growth and inevitable death, to date palm populations made up of intergenerational groups of trees, death alongside birth, to the open-ended struggle between insects and plants, to biomass reverting to soil, etc. Without human economic interest in the date palm's abundant fruit, "destructive" wildfires simply fulfil their rejuvenating function, and the former image merely presents an aesthetic problem when a lack of human ordering is equated with general disorder.

Date palms (*Phoenix dactylifera*) also belong to a genus that has a considerable ability to "re-grow after fire damage" (Zaid and de Wet 2002), a subject that has not been studied very much.[32] The rare research on other species of the same genus, such as the mountain date palm (*Phoenix loureiroi*) has noted that "palm populations have the capacity to support—and may even benefit from—fire" (Mandle et al. 2015, 1040), depending on the strength, frequency and context of the fire and other environmental conditions. Several studies have also looked at dwarf palms as a symbol of the "cycle of fire and recovery" (Stott 1988, 339; see also Keeley et al. 2012, 97); however, at the same time, their leaf architecture "can act as ember catchers and relay embers" (Keeley et al. 2012, 378), a combination of individual resilience and environmental hazard.[33]

In several instances, the aftermath of the fires also intensified the shift from horticulture to agriculture, from shady forest to open field. The following Google Earth imagery, which juxtaposes June 2004 and November 2009, show this shift quite clearly on Saï's northern side, in Saïsāb, excluding the strip of undamaged date palms mentioned during the walk (Image 6).

Faʾiz and Faraḥ outlined the broader dynamics they saw behind the movement away from date palms:

- The technological shift from waterwheel to engine, which initiated an unprecedented intensification of agriculture, especially in areas that could not easily be extended;
- The subsequent shift from families to sharecroppers, accelerated by a parallel increase in labour migrants from other, often crisis-stricken, regions of Sudan and in resident labour migrants leaving for urban centres or other countries;
- The incremental complications and fragmentation of land and palm ownership through inheritance;

32. The etymology of the botanical name *phoenix* (from Greek φοῖνιξ) may be an indication, although its derivation from the name of the mythological bird is just one among several possible origins (Zaid and de Wet 2002).

33. In phytological terms, the date palm is part of a group of species—next to other palms, cycads etc.—whose post-fire behaviour constitutes a special case. Some of its characteristics can be categorised as polypyric iteroparous obligate resprouting, meaning that it is a species that if not destroyed by fire can reproduce multiple times after multiple fires by regrowing from its bud rather than leaving seeds behind to germinate after the fire (Pausas and Keeley 2014). However, according to Juli G. Pausas, the apical buds of typical resprouters die during fires and re-growth happens from buds that were dormant or protected below the bark or the ground, etc. He suggests calling this "apical resprouting" (e-mail communication, 8 April 2021).

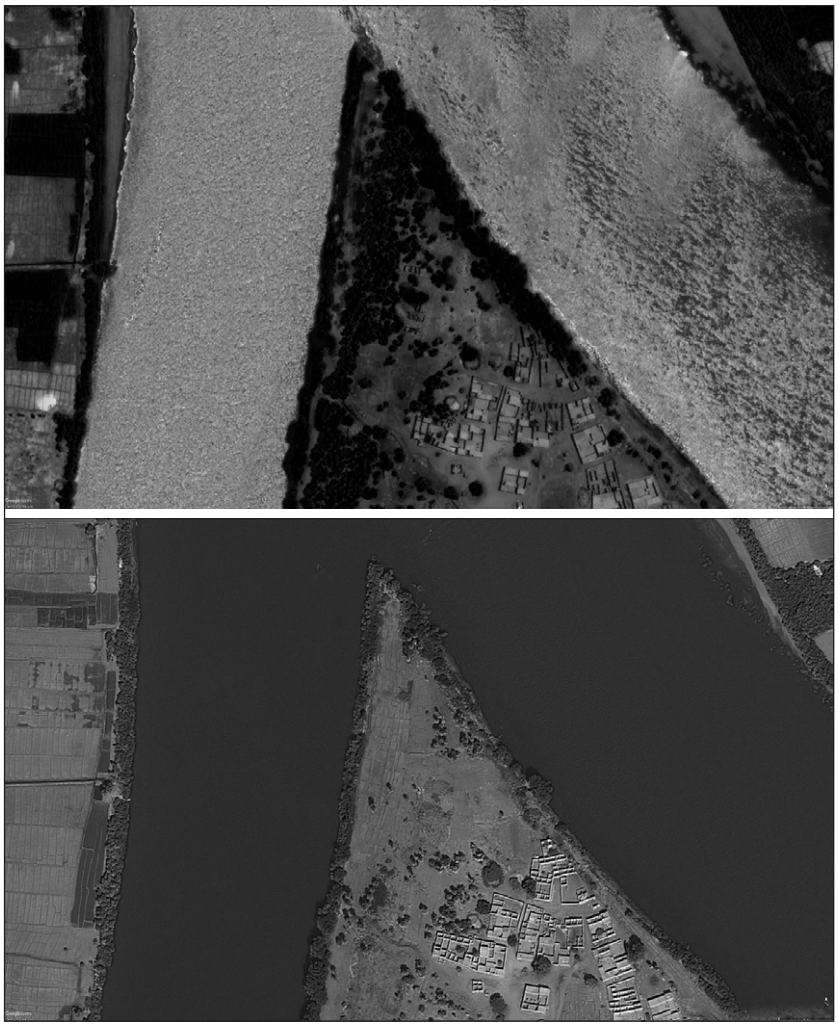


Image 6. Shift from date palm cultivation to agriculture on northern Saï
Source: Google Earth Pro imagery, June 2004 and November 2009 (view location 20°45'39.24" N 30°19'05.92" E [geo:20.76090,30.31831]).

- A perceived reduction in the productivity and profitability of date palms—for a number of climatic, horticultural and commercial reasons—combined with increases in the prices of agricultural cash crops such as wheat and broad beans;
- Generational lifestyle shifts, together with long-term migration and professional diversification (employment, trade, mining etc.), which accumulated with the other developments to result in a weakening relationship with date palms as a social connector and/or economic stake.

From this perspective, the burning date palms were both a representation and an extension, as Faʾiz said, of "the distance between me and my uncles and my uncles' uncles."[34]

It would be wrong, however, to take this as a resigned acknowledgement of an inevitable societal development. As Faraḥ's final remarks during the walk—and Faʾiz additional comments during a later walk—highlighted, the response of the official authorities was considered not just to be subpar but also a part of a more general—and maybe intentional—neglect of the state's protective duty towards its citizens, an

34. The exclusionary male view of societal bonds is most palpable here, but it will not be a focus at this point.

aspect that will be central to the interpretation we present next. At the same time, their criticism implies that they considered this development to be far from inevitable.

Wind patterns

Saï lies about 160 kilometres southeast of Wadi Halfa and about 165 kilometres north of Dongola. These two towns host the only weather stations in the whole region (SU62600 and SU62650).[35] They are in one of the driest and hottest areas not only of Sudan but also worldwide, but the annual average temperature is below that of many other areas of the Nile Basin due to a clear difference between a moderately cold and very hot season.[36] However, Faraḥ's identification of June through September as the hottest period of the year is confirmed by the measurements, as shown here by the monthly averages from both weather stations between 2000 and 2013.

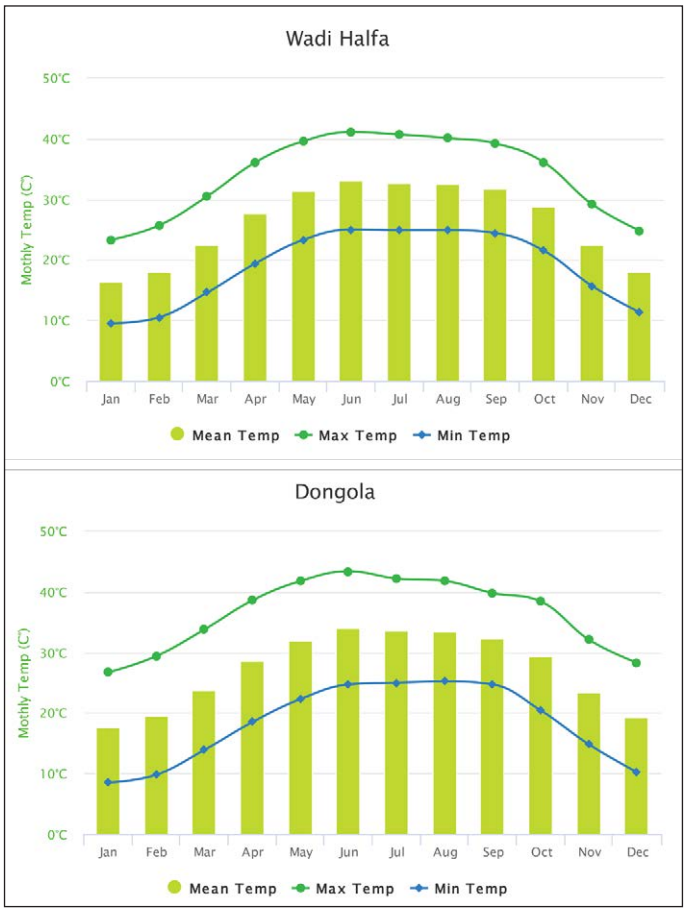


Figure 1. Average monthly temperatures at weather stations Dongola and Wadi Halfa, 2000-2013
Source: Nile Basin Water Resources Atlas 2016, http://atlas.nilebasin.org/treatise/temperature/ [archived].

35. See http://atlas.nilebasin.org/treatise/introduction4/ [archived], and http://atlas.nilebasin.org/treatise/the-main-nile-sub-basin-2/ [archived], for an illustration of the low density of weather stations across the entire region.

36. See http://atlas.nilebasin.org/treatise/temperature/ [archived], based on data from 2000-2013 processed by the Sudan Evidence Base Programme (World Bank, GoS) and the Climatic Research Unit (CRU) of University of East Anglia (UEA).

Another more substantial observation, however, was not only the strong winds blowing during the same period, but also their increasing unpredictability. Farah̩ noted a declining ability to predict wind patterns, but we also considered changes in these patterns as a possible explanation for fire-making getting out of hand.

A first, broader look at wind patterns did not seem to confirm this. In large-scale models, sudden high wind speeds in June and August have been identified as being far more prevalent on the eastern Nile south of our study area and throughout the year further west, in Darfur.[37]

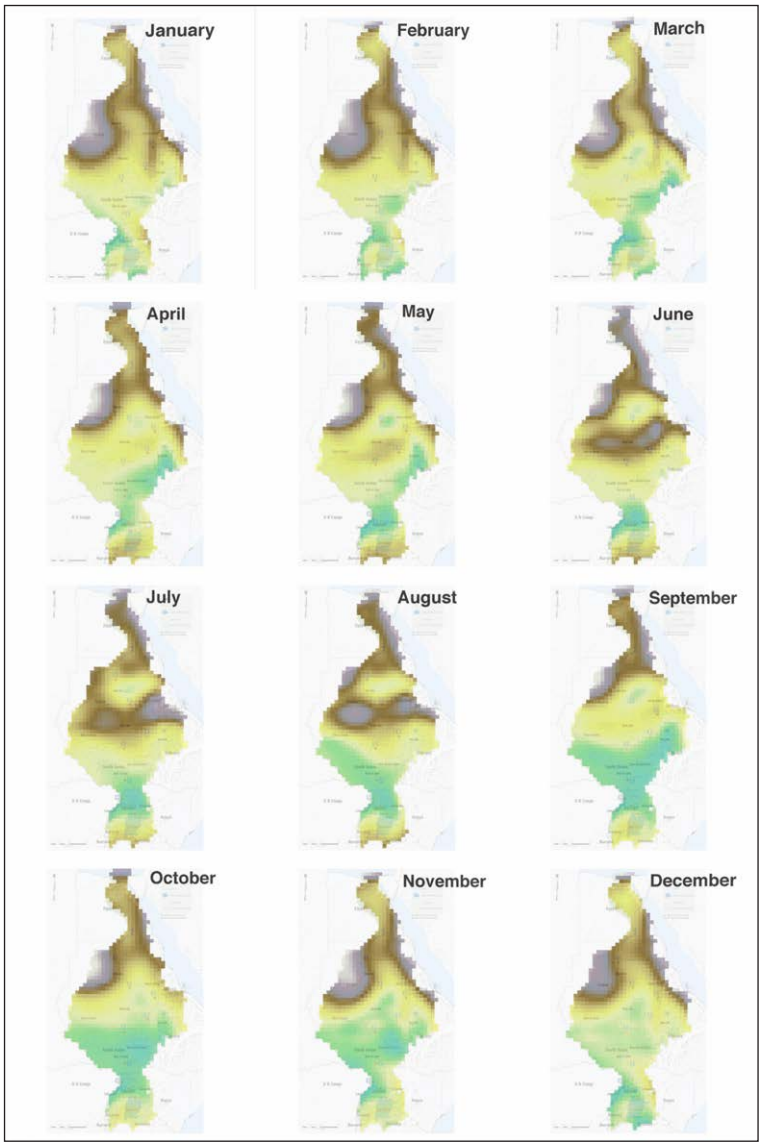


Figure 2. Average monthly wind speed in Nile Basin
Source: http://atlas.nilebasin.org/treatise/wind-speed/ [archived], superimposed on the map on http://atlas.nilebasin.org/treatise/nile-basin-water-resources-atlas/ [archived].
Persistent identifier (including GIF version and separate images): https://doi.org/10.5281/zenodo.7351612.

37. High wind speed is indicated by lilac / violet; the study area is on the left, the western "shoulder" of the coloured shape, Darfur is on the left, the western side of its "belly."

Going deeper into the local data, monthly wind speed and direction averages, which Mohamed Salah collected directly from the Sudan Meteorological Office,[38] give the following picture for Wadi Halfa (wind speeds in knots):

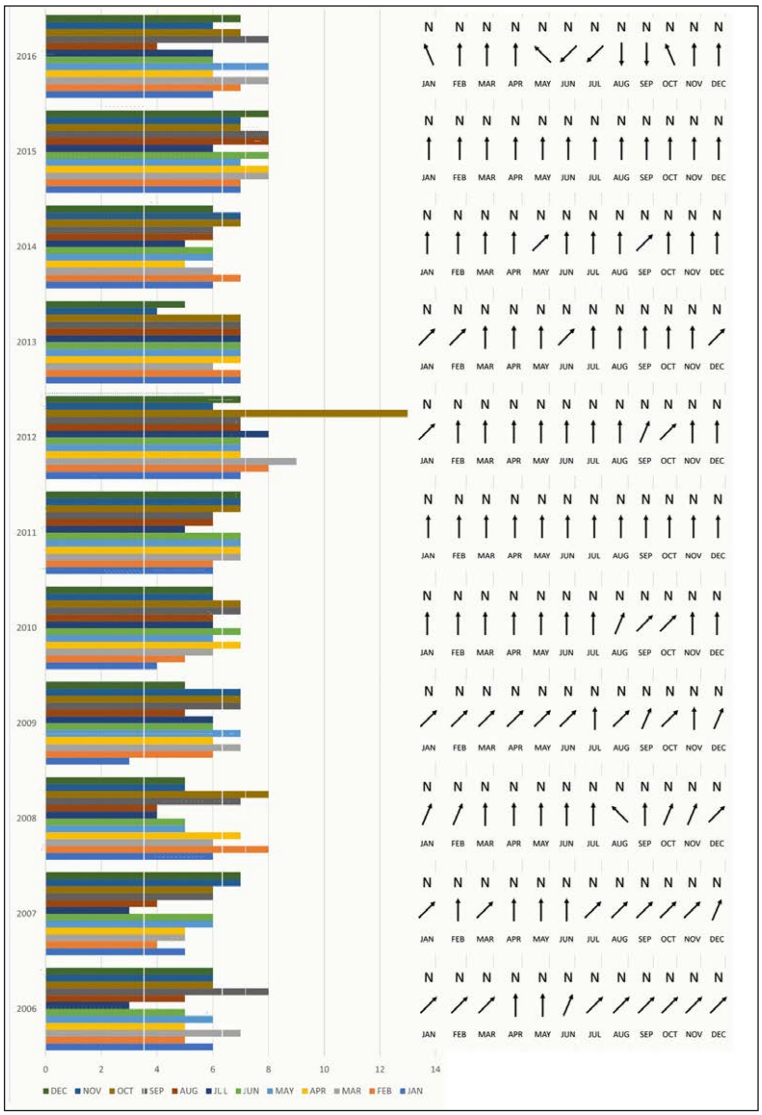


Figure 3. Wadi Halfa average monthly wind speeds in knots, 2006-2016
Source: Sudan Meteorological Authority.
Persistent identifier (including GIF version and separate images):
https://doi.org/10.5281/zenodo.7351620.

Like the lack of clear patterns of wind speed changes over the year, the recorded wind directions offer a picture of great regularity—apart from unusual values for 2016. But what if this "regularity" is simply an effect of the "flattening" we see when everything is averaged out? Considering the time- and place-specific knowledge required when it comes to using fire, and when and where, this flat aggregation seems to miss the point.

38. Here, "collection" meant spending several days sitting in office buildings, waiting for and negotiating access to these public data, which are legally available to be viewed. This is a significant aspect of the information politics discussed further below, especially considering that they are still not disaggregated data, but only pre-processed information.

An entirely different impression is given when going down to the level of daily averages. If the data on wind speed available for Dongola and Wadi Halfa for the years between 2005 and 2011 are used, the month of June begins not only to look as if it is subject to strong fluctuations where the average wind speed varies between Beaufort number 0 or 1 and 5 or 6 over a few days, but also makes the impression of unpredictability more understandable[39]:

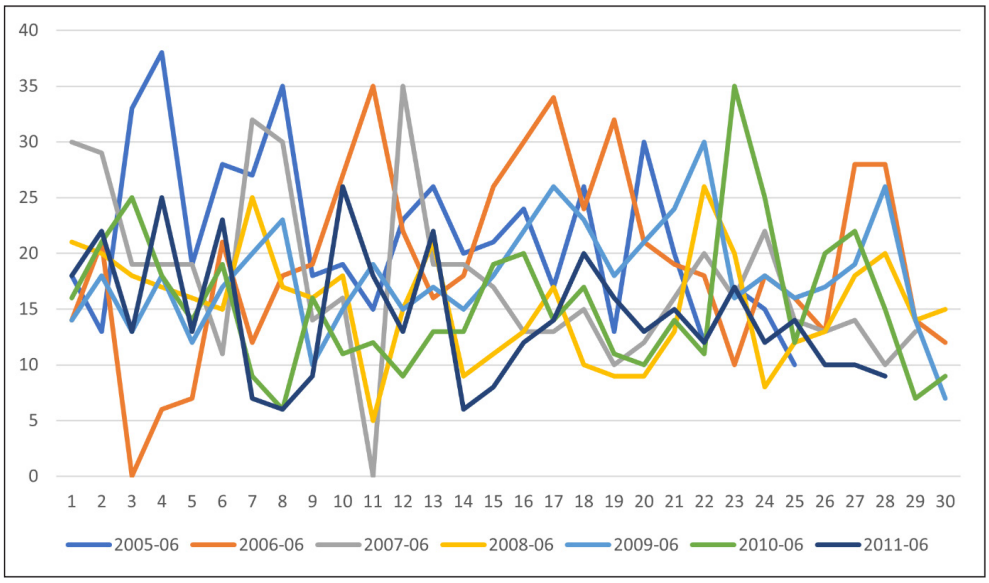


Figure 4. Average wind speed in km/h, Dongola in June 2005–2011
X-axis: days; y-axis: speed in km/h.
Source: Jeddah Regional Climate Center.

However, this variability is shown throughout the year, and is to some extent more extreme in other months. In January 2005, the daily averages rose as high as 115 km/h (10 January), falling to 9 km/h less than a week later (16 January), and similar extremes can be found in February and April, but not in the months after June. In fact, even the maximum speed remained almost always below 40 until 21 May 2006, which saw an isolated peak of 113 km/h. The following year, the period up to March 2007 saw a similar pattern to the June data throughout the year, slowing down over the cold season until several peaks during April 2007, with maximum speeds of 120 km/h on 2 April and 122 km/h on 11 April, accompanied by averages close to 40 km/h (and 72 on 2 April itself). The whole year exhibited a constant inconsistency of up to 40 km/h shown in the diagram, and even April 2008 passed by without further extremes.

The following year, wind speeds were slightly "slower," with June average values mostly below 20 km/h, until September 2008 came with further sudden changes,

39. The now defunct website of the Jeddah Regional Climate Center reproduced daily, albeit incomplete, data on temperature, dew point, humidity, air pressure, visibility, wind and precipitation from both weather stations (archived on https://web.archive.org/web/20160406131312/http://jrcc.sa/history/Cities-20-Sudan.html). The available data were used to indicate tendencies rather than to give a reliable picture of the microclimate.

especially around 12-14 September, when the average shot up from 9 km/h to 70 km/h (with a maximum of 111) and again down to 19. The following months reverted to the previous pattern and a slower cold season seemed to be following, until February 2009 saw a similar sudden outburst on around 24 February (average 86 km/h, maximum 148 km/h). Contrary to the usual pattern, April was among the quietest months that year, and only from 24 April onwards were averages above 30 km/h reached, continuing intermittently into May, peaking on 30 May with 111 km/h and eventually settling into a "normal" June and a rather quiet hot and similar cold season. Up to the end of the available data, in August 2011, the wind patterns remained in this range, rarely rising above 40 km/h and without any further extreme values.

The objective of providing these numbers is to indicate that the overall "wind character" of the area is one the Beaufort scale would describe in terms of breezes, rather than winds; the Wadi Halfa averages remain in the range of "gentle breezes." At the same time, there are occasional sudden storms that tend to occur around February, April and May, but not in predictable ways, and they are often accompanied by very quiet days.[40]

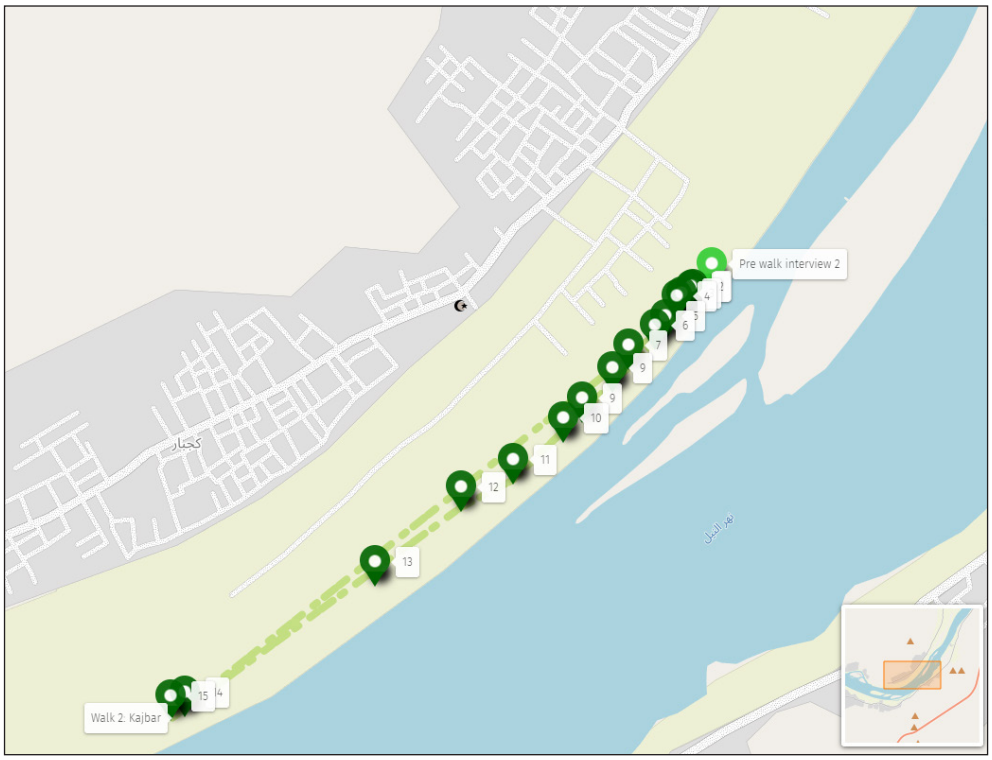
Two extensions of Faraḥ's observation of environmental illiteracy are possible here: first, the debate on the interpretations of the climatic reasons for date palm fires is hindered by a lack of differentiated and local data due to the absence of a situated environmental monitoring system. The absence of a network of climate data production means that patterns from the observation centres across a distance of over 300 kilometres have to be used to make quantitative statements about the micro-climate of the case study areas. Even these existing data are not easily accessible to those concerned with the fires and are therefore virtually irrelevant to the societal debate.

Second, in this case, the predictability or "readability" of an environment is closely related to experience rather than to information systems, and is therefore individualised. This is the entry point for one of the interpretations that focus on the usual uses of fires and find that fires are the result of accidents, and by extension of negligence (*ihmāl*). This will occupy a great deal of our time in what follows, as it is an accusation that drives, or at least accompanies, almost all the interpretations, although they attribute various responsibilities.

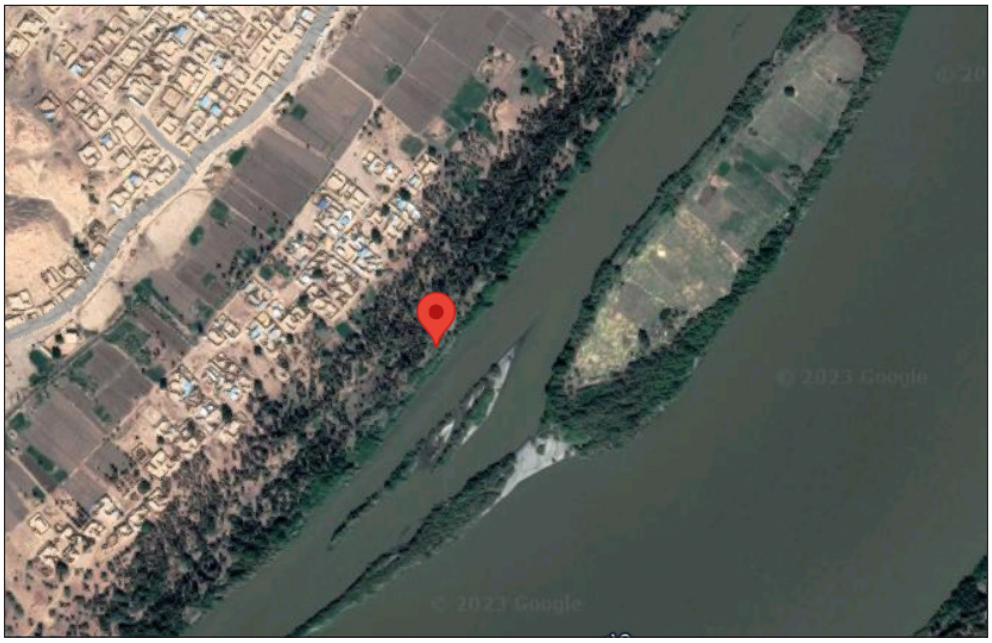
40. While we cannot present the Wadi Halfa data in detail here, there is an even stronger confirmation of this suddenness of storms there. By way of example, a devastating hurricane of 167 km/h on 10 May 2005 was followed by a day averaging 9 km/h (also the maximum); in the same month, a speed of 143 km/h on 26 May 2005 was followed by a day without any wind movement at all.

Case study 2: Kajbar

Georeference: 19°56’52.9” N 30°32’33.2” E (geo:19.948033,30.542550)



Case study 2: Kajbar (map)
See full screen: http://bit.ly/3kULqgz.



Case study 2: Kajbar (Satellite view)
Source: Google maps. See full screen.

Pre-walk interview 2: Kajbar, 3 March 2017 (text): See Appendix
Download PDF.
On ArcGIS Storymaps: https://storymaps.arcgis.com/stories/b55c52ba9e664dafa30cf6a942b7f357. / On Umap: https://bit.ly/3kULqgz.
Persistent identifier: https://doi.org/10.5281/zenodo.6901047.

Walk 2: Kajbar, 3 March 2017 (text): See Appendix
Download PDF.
On ArcGIS Storymaps: https://storymaps.arcgis.com/stories/0c6693a744e64bdb8d6e6e6def4f63d3. / On Umap: http://bit.ly/3wL2UyC
Persistent identifier (text and images): https://doi.org/10.5281/zenodo.7348344.

Interpretation: Political violence

What makes the meandering exchange with Fāris so intriguing is that it arrives at a political economic picture that does not differ very much from what we both had arrived at in our own discussions. However, his understanding did not allow for the ambiguities and intricacies that made the political debate about date palm fires a much less straightforward matter. Both direct accusations and interpretative complexity can arise from interweaving the phenomenon of date palm fires with the ongoing struggles over dams on the Nile, from relatively small ones in the study area to the megadams—the Aswan High Dam and the Grand Ethiopian Renaissance Dam (GERD)—as well as other water-related plans, especially the increasing number of large-scale irrigation projects south of the study area.

Two basic meta-narratives clash in these struggles: hydropower dams as a requirement for development (electricity and irrigation) versus hydropower dams as a tool of neo-colonial imposition by an authoritarian, self-enriching government.[41] These narratives are part of the heated political debates that also underlie much of the production and distribution of environmental data in the area, as Mohamed Salah experienced during his research on the impact of dams. On the government side, there was not only a profound securitization of information, with security agents involved in research details and statistical processes; location-specific basic data on climate, flora and fauna were mainly funded within the framework of the commercial enterprises involved in these investment projects. Official data were often outdated and fragmented, and only accessible through private networks and/or by payment. Together, the difference between the data gaps and non-disclosure was difficult to assess. On the opposition side, observations were often directed by a general presumption, or at least a leaning towards the idea, that anthropogenic causes were behind the negative environmental developments, assuming that agents were commissioned by a hostile regime that craved Northern State's natural resources but despised its human inhabitants.

41. This topic has been the subject of several extensive studies, such as Verhoeven (2015) and Abd Elkreem (2018).

Statistics

In this heated milieu, our own assessment of the extent of date palm fires was only one of several other statistical works. Our efforts faced both a political and an observational problem: distinguishing between increased occurrence and increased documentation. There are virtually no data on fires before 2006, which means that there is no baseline for diagnosing an increase. In addition, when documentation began to be kept, it may have focused more on areas of heightened political mobilisation, as there was a greater interest in publicising events.

As we will show, we were not able to resolve this problem. Nevertheless, considering the fundamental impact these fires can have on thinly-spread settlements, it is likely that social memory is somewhat reliable here, and if date palm fires were a normal state of affairs, their undeletable marks on trunks and the age structure of palm populations would reflect that. A sharp increase since the mid-2000s, which is what most of the assessments claim, also seems probable to us.[42]

However, the limited amount of documentation means that historical reconstruction requires a major effort. A full evaluation of even just the three events presented in this article means that an investigative effort would take years if it were to be extended to all the other cases (see an example of such research below). Alas, our own initial assessment brought us to 97 events between 2007 and 2017, 55 of which we could trace to specific months and 47 to a specific day. In 9 cases, we have additional eyewitness statements but no further multi-layered investigation similar to that presented in our case studies here. In the case of most events, Mohamed Salah gathered at least general estimates of damage, mostly rough numbers, and our subsequent calculation brought us close to 150,000 date palms affected by fire in that period. As will be seen, this is but a small sample of all the fires that occurred, and it is used here merely to discuss the circumstances under which different forms of evidence were included in the interpretation of date palm fires.

Over the years, hundreds of articles, posts, comments, lists etc. have been published online. It is not our intention to assess these media materials here, but it is of interest to report the immediacy of the eyewitness accounts as experienced during the walking interviews to their translation into numbers, wider narratives and political claims.

Estimates for post-2007 losses reached from a few thousand to almost 1.5 million palm trees. Official estimates were rarely communicated, which led to the widespread impression that they do not exist, and where they have been communicated, they show very divergent approaches to public information. Officials from the Northern State government and lower administrative levels

42. One citizen from the area of Dongola Urḍī was quoted in a media report as observing that it was normal for such large fires to occur in different areas every five years, but not with the frequency and spatial closeness that is now the case ("Ḥarāʾiq al-naḫīl bayn ʿsiyāsat al-ʿarḍ al-masmūmʾa wa al-laġaz ʿal-muḥaṭṭāt ġayr al-marʾiyyah," *Al-Taghyeer*, 8 October 2016. https://www.altaghyeer.info/ar/2016/10/08/حرائق-النخيل-بين-سياسة-الأرض-المسمومة/ [archived]).

spoke repeatedly about enormous losses all over the state.[43] For instance, a workshop was organized in August 2016 by Dongola locality in the local National Information and Security Service (NISS) building, together with the Civil Defence Administration and the Strategic Planning Council. Northern State's Director of Civil Defence Administration, Ibrahīm Ṭaha Al-Shush, was quoted as saying that 36% (1,390,000) of all date palms in the area (3,840,150) had been damaged by fire between 2007 and 2016, with an economic loss of 41,728,800 SDG (€6,138,660),[44] while the protection services were said to have prevented further losses as high as 442,705,304 SDG (€65,125,697). The fires increased by 375% during this period, from 53 registered fires in 2007 to 186 in 2016.[45]

In contrast, voices from the central government mostly claimed not only a limited extent but also a limited impact of these fires. The Minister of Agriculture Ibrahim Al-Dukhayrī, for instance, repeatedly alleged on a radio programme in May 2016 that only limited areas in the Northern State, most of which were covered by agricultural insurance, had been affected, and thus the losses had been minimal.[46] This was echoed by the newly-appointed Governor of the Northern State in August 2016 when he claimed that only 2,450 date palms had been burned throughout the state in 2015.[47]

The Nubian Committee for Development and Resistance to the Dal Dam Construction had previously claimed in August 2014 that over 170,000 palms had been affected by arson since 2005, causing losses of more than 17 million SDG

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43. For example, as early as 2013, the official speaker of Al-Dabbah locality ("Ḥarāʾiq hāʾil yaqaḍī ʿlā (ʿalfay) shajarah naḫīl muṭmirah bi-maḥaliyyah al-dibbah bil-shimāliyyah," *Radio Dabanga*, 28 June 2013.
https://www.dabangasudan.org/ar/all-news/article/حريق-هائل-يقضي-على-ألفي-شجرة-نخيل-مثمرة-بمحلية-الدبة-بالشمالية [archived]).

44. Due to the high inflation rates, the numbers from different years describe very divergent values. In addition, the official exchange rates differed greatly from the informal exchange markets, which were more important for the general population, until the currency was partly floated in February 2021 and fully floated in March 2022. The Euro values given here and below are only intended to offer an orientation and are based on the exchange rate documented by xe.com for 1 August 2016.

45. "Al-difāʿ al-madanī yakshif malābisāt ḥarāʾiq al-naḫīl bil-shimāliyyah," *Nubokeen*, 2 June 2016. http://nubokeen.com/web/الدفاع-المدنى-يكشف-ملابسات-حرائق-النخ/ [archived]; Al-Intibaha, "Al-shimāliyyah tuḥaḍḍir min ḥarāʾiq al-naḫīl," *Al-Nilin*, 3 June 2016. http://www.alnilin.com/12783595.htm [archived]; "Fire Consumes Date Palm Groves in Sudan's Northern State," *Radio Dabanga*, 31 August 2016. www.dabangasudan.org/en/all-news/article/fire-consumes-date-palm-groves-in-sudan-s-northern-state [archived].

46. Al-Intibaha. "Al-zirāʿah tatqaṣā fī ḥarāʾiq al-naḫīl bil-shimāliyyah," *Al-Nilin*, 7 May 2016. http://www.alnilin.com/12775220.htm [archived].

47. Press conference at the Tayba Press hall in Khartoum, 25 August 2016, attended by Enrico Ille. Unless an immense increase is implied, this contradicts not only the 2016 workshop numbers but also government statistics quoted on later occasions, such as 60,000–70,000 for the period from 2015 to 2017 ("More than 60,000 Palm Trees Lost in Three Years," *Radio Dabanga*, 20 August 2017. https://www.dabangasudan.org/en/all-news/article/northern-sudan-more-than-60-000-palm-trees-lost-in-three-years [archived]).

(€2,500,844).[48] Then and subsequently, these numbers have been mostly based on the work of Al-Ḥassan Hāshim, the General Secretary of the committee, who has conducted the most extensive research on this issue since 2011 and whose evidence and arguments we discussed in a lengthy interview with him.[49]

In 2016, Al-Ḥassan Hāshim's calculations had increased to about 250,000 date palms. His database gathered information from communal websites, newspaper articles, social media posts, police reports, eyewitness statements, journalists and officials, by telephone or in person. He used an order of reliability, favouring eyewitnesses and marking information that was merely mentioned on Facebook and similar sources as "still under investigation." Since many villages in the Northern State, including Saï, had their own websites, he watched them too. Finally, he tried to connect to the official statistics but came to the conclusion that they suffered from a low level of reliability: he asked for confirmation at Abri's civil defence office of the approximately 180 fires in 135 villages he had taken note of, but found that only 13 villages had been registered, with an overall loss of about 50-60 palms. At the same time, he urged people not just to count the affected palms but also to register them with the police in order to have official documentation in future court cases to demand compensation after, or even before, the end of the regime. Unfortunately, he observed, this was not always done.

There is a more deep-seated complication here, which rarely made it into explicit statements during the debate: we registered several cases in which the "perpetrator" was very well known but was not persecuted, or even named, as he belonged to the social network of owners who did not want the state or other "outsiders" to become involved, or who wanted to avoid a communal punishment that might damage their social relations. The "internalisation" of the matter not only kept the actual causes of some of the fires from being documented, but also withheld this information from those who were pursuing the question of guilt from "outside," from a non-resident vantage point.[50]

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48. "Ḥarāʾiq al-naḫīl: ḫasāʾir mādiyyah wa ijtimāʿiyyah wa al-ḥakūmah hiya al-mutahim al-ʿawwal," *Nubian Palms*, 15 August 2014. http://nubianpalms.blogspot.com/2014/08/blog-post_15.html [archived] (with other numbers in "Fire consumes date palm groves in Sudan's Northern State," *Radio Dabanga*, 31 August 2016. https://www.dabangasudan.org/en/all-news/article/fire-consumes-date-palm-groves-in-sudan-s-northern-state [archived]).

49. The unstructured interview was conducted by Enrico Ille in Khartoum on 22 October 2016; it lasted 2 hours and 17 minutes. The following material referring to Al-Ḥassan Hāshim is taken from a transcribed and translated version of this interview.

50. This is also true through increasing real-time "participation" by an interested audience on social media. During the August 2017 fire in Murka on Saï, Facebook posts informed wider circles about detailed developments. However, while our own investigation showed that both the reason (cleaning) and the perpetrator (by name) were known locally, the discussions around the posts were dominated by political accusations, including Egyptian involvement (see, for example, https://www.facebook.com/Sudanvideos/posts/1198242026985990, archived as pdf print under https://doi.org/10.5281/zenodo.7194638).

The quoted numbers must face another complication, however. A comparison between the burned and the unburned areas in the orchard, as was made during the walk in Kajbar, showed not only recovering (and "cleaned") palms in the former but also ongoing cultivation beneath them—sometimes in contrast to forest-like unburned and uncultivated areas, which in both cases makes it more difficult to speak of total economic losses.

Accusations

The politically invested search for reasons and/or perpetrators meant that the ongoing registration of date palm fires differed from a statistical process for documentary purposes or a disinterested description of what had happened. In fact, quantification lay at the heart of the political discourses around the matter, as it was rarely denied that there were different causes for fires, including accidents; it was what made up the majority of cases, and thus the *main* reason for them, that was a cause for debate. Absent generally accepted forensic processes that clearly related perpetrator, motivation and result, an explanatory vacuum was left that was filled with assumptions, many of which had their roots in existing political positions. Since the perpetrator and the exact reason for fires remained unknown to many people in many cases, there was a great deal of room for interpretation with a political bias.

Al-Ḥassan Hāshim presented a more complex version of Fāris' argument that the fires, or at least most of them, were the result of commissioned arson as political violence against the region's Nubian population. His interpretation starts by identifying the fact that date palms were of central historical, cultural, social and economic importance to this population. In his view, there are about six million date palms in Northern State, which produce unique dry date types that allow for very long storage times. These dates are also nutritionally rich, more so than any other fruit, he said, with minerals that increase brain function and intelligence.[51] In his memory, he sees his family eating dates all day from trays made from palm leaves. Accordingly, date palms were central to his social relationships and friendships, not just at harvest time, but also when the ripening dates (*ruṭab*) needed protection from birds. Since virtually no single date palms were the property of one person at the time, but rather a group of palms growing for decades from one old "mother" belonging to many heirs, this protection would be provided for all of the shareholders (*shurakāʾ*) by groups of boys who spent their days in the shadow of the date palms.

Fire had always been used in the groves: mothers and grandmothers made honey and other derivates from dates there; lupin beans (*turmus*) were cooked with date palm wood to reduce their bitterness before being stored in the home; the pits of dates were ground and used to make cigarettes; agricultural waste and food leftovers were burned under the palms; and fire was even used directly—but carefully—on date palms to treat disease and insect infestations. None of this had led to the spreading of fires experienced since 2005.

51. He also remarked that dates are often mentioned in the Qur'an (21 times) and that there are 300 sayings (*aḥādīṯ*) about them by the Prophet.

This suggested to him that an explanation other than "normal" fires getting out of hand was needed. As he interprets it, the answer lies in the population's resistance to hydropower dams and the subsequent political violence unleashed on them by Sudan's central government. The Northern State could not easily be turned into a theatre of war, as the government had done in Darfur and the Nuba Mountains.[52] However, by means of commissioned arson, an important link between the Nubian population and the Nubian "heartland" (*al-wijdān al-nūbī*) is damaged, like the loss of a child that creates a landscape of trauma. The result would be an increase in emigration, through which slow resettlement—rather than direct mass displacement—is achieved. This would be the strongest weapon against Nubian attempts to stop dam construction in the area.[53] He also took the view that that date palms were of fundamental economic importance, and that this loss of a more or less secure annual income—similar to Faraḥ's situation—was increasing already existing doubts about their economic viability due to climatic, social and market changes.[54]

However, apart from the political logic that it seemed to him could be observed from the fires and the damage they caused in general, he also saw evidence in their specific characteristics. He pointed out a spatial pattern, for instance: wildfires were an issue across wide areas of Sudan but an inordinate increase in their number was only experienced in areas that were targeted for population displacement because of the new dams, meaning downstream Dal and Kajbar.[55] The following two maps illustrate this by showing the "target" area, and the sites of verified fire events from our own database of fire events in the Northern State.

The fact that there were some date palm fires outside this core area does not devalue the argument in itself, as other, albeit lesser, reasons for fires have been allowed for. Some also involved areas close to planned dams or otherwise contested agricultural or mining areas, such as Al-Bāqīr in Abu Hamed locality (River Nile state, March 2016); Al-Ḥassan Hāshim also registered fires at the dam sites of Shireik (for example on 3 October 2015) and Merowe (such as the one on 4 May 2015).[56]

52. He was referring here to a 2003 report by the International Crisis Group (2003).

53. Attempts have also been made to internationalise this issue, often in the wake of anti-dam mobilisations. In some cases, the very survival of Nubia was described as being in need of preserving, for instance in an open letter asking "the leaders of the world" to save North Sudan from extinction through fire (*min al-finā' ḥirqan*), published on *Al-Rakoba* on 7 April 2015 (Bakrī Al-Ṣā'iġ, "Ilā rū'sā' al-'ālim nanāshidakum: 'Anqaḍū shimāl al-sūdān min al-finā' ḥirqan,'" *Al-Rakoba*, 7 April 2015. https://web.archive.org/web/20150408220132/http:/www.alrakoba.net/articles-action-show-id-59902.htm)

54. A reduction in future compensation claims for flooded areas was also among the intentions seen behind the arson (see "Palm Fires 'Deliberate,' Northern Sudanese Say," *Radio Dabanga*, 21 October 2016. https://www.dabangasudan.org/en/all-news/article/palm-fires-deliberate-northern-sudanese-say [archived]).

55. For example, Nūr Al-Dīn 'Uṭmān, "Ḥarā'iq al-naḫīl .. wa mā adrāk ... mā al-sudūd!!," *Al-Rakoba*, 8 June 2014. https://web.archive.org/web/20140610234017/http:/www.alrakoba.net/articles-action-show-id-50558.htm.

56. Shabakat Al-Shirūq, "Al-nayrān talthim 'alāf 'ashjār al-naḫīl bi-'abū ḥamad," *Al-Nilin*, 23 March 2016. http://www.alnilin.com/12761072.htm [archived]; "Ḥarīq yaqaḍī 'alā 'alāf

Map 1. Major dam projects in Sudan and palm fire events in Northern State, Sudan

The Second Cataract is actually submerged under the southern extension of Lake Nasser, which is mistakenly merged here with the position of the planned Dal Dam.

Source: https://archive.internationalrivers.org/sites/default/files/styles/600-height/public/images/campaign/ian_elwood/nubian_dams_web.jpg?itok=ANZmEm7x [archived] (base map); https://3ayin.com/حرائق-النخيل-في-الولاية-الشمالية-الد [archived] (highlighted area).

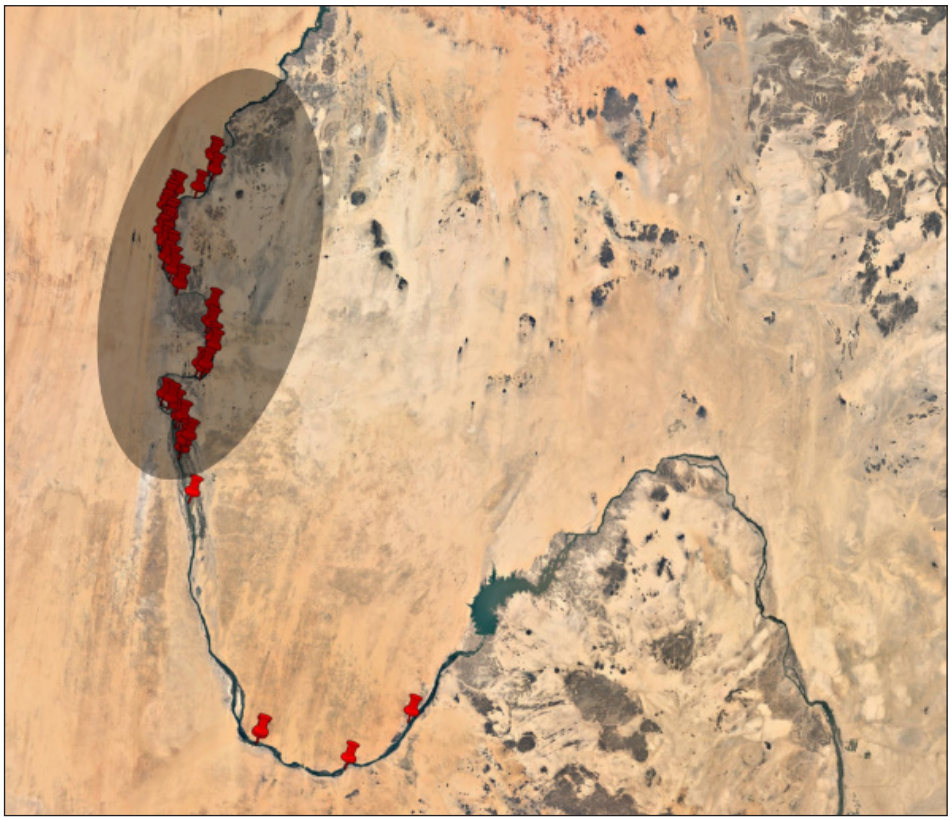

Image 7. Google Earth imagery, overlain with place marks based on own fire event database
Source: Google Earth, author.

Another, even more specific, argument in favour of this interpretation looked at the detailed circumstances of fires, especially their timing. He noted that most of the fires seem to have started during regular periods of absence such as prayer times, or during larger social events. Many, for instance, began during Friday prayers or weddings: on Wawa island, it was when all the inhabitants were on the mainland for Friday prayers; in Tundi, most of the population had gone to a wedding in Khartoum; in Debasha, two weddings on Thursday were followed by a fire on Friday; and so on. In some cases, the person suspected of starting the fire fled and was never found again, as in Kajbar. In other cases, the intention seemed quite clear, like in Farka, where several fires started at different points and it was found that 10 water pump engines had had their belts cut. Sometimes, the timing appeared to be more symbolic, as was the case with the fire of 21 October 2014 on the island of Waisi close to Sawarda, the birthplace of the most famous Nubian singer Muhammad Wardi.[57]

ʿashjār al-naḫīl fī baladah bi-shimāl al-sūdān," *Sudan Tribune*, 22 March 2016. https://www.sudantribune.net/13728,حريق-يقضي-على-ألاف [archived]. Apart from constructed dams (Merowe, Shereik) and the planned dams at Dal and Kajbar, there have also been plans for the Dagash Dam, south of Abu Hamed, and the Mograt Dam west of Abu Hamed (Hafsaas-Tsakos 2011).

57. The symbolism lies in the fact that 21 October 1964, exactly 50 years earlier, is considered to be the starting point of the so-called October Revolution, which marked the end of the rule of Major-General Ibrahim Abboud, under whose regime the displacement of the Halfa Nubians during the raising of the Aswan Dam had taken place. The fire was documented in "Ḥarīq fī

Government responses

Aside from the issue of the perpetrator, one aspect that was widely criticised in our interviews was the civil defence and administrative response to the fires, both during and after them. The allegation of the civil defence's incapacity to respond to and investigate fires was a frequent one in media reports as well,[58] but it was more in the direction of intentional neglect when combined with a political accusation.

Media reports on the government's response often tended to confirm the political leanings of the outlets, such as Radio Dabanga's oppositional stand and SUNA's confirmative stand, but to complicate matters, their spatial focus tended to diverge, with the former reporting on the northern areas of the Northern State, and the latter mostly on areas between Khartoum and Kerma as the northernmost point, unless a visit by a senior state official was involved.[59] But while the responses are difficult to assess independently, there still appears to be a trend towards a decline in significant reactions by the civil defence and/or police the further north they were from the centre of the Northern State government in Dongola.[60] The suggested pattern of different response rates can thus be interpreted both in terms of logistics and politically informed priorities; in fact, each can be interpreted in the light of the other.[61]

ʿashjār al-naḫīl yajbur ʿahālī ʿṣawārdaʾ ʿalā ʿaḫlāʾ al-baladah," *Sudan Tribune*, 21 October 2014. https://sudantribune.net/article239972/ [archived].

58. The possible response time between areas such as Difoi and the nearest fire station in Dongola—before the establishment of equipped teams in Abri and Dalgo—was at least five hours ("Ḥarāʾiq al-naḫīl bayn ʿsiyāsat al-ʿarḍ al-masmūm̂a wa al-laġaz ʿal-muḫaṭṭāt ġayr al-marʾiyyah," *Al-Taghyeer*, 8 October 2016. https://www.altaghyeer.info/ar/2016/10/08/حرائق-النخيل-بين-سياسة-الأرض-المسمومة/ [archived]).

59. The civil defence response to a 2016 fire in Al-Bāqīr in Abu Hamad locality (River Nile state), for instance, was reported in a congratulatory tone (Shabakat Al-Shirūq, "Al-nayrān talthim ʿalāf ʿashjār al-naḫīl bi-ʿabū ḥamad," *Al-Nilin*, 23 March 2016. http://www.alnilin.com/12761072.htm,[archived]).

60. Further up the Nile, the civil defence infrastructure increasingly improved. When a fire broke out in Shaba, in rural Karima, in March 2016, for instance, the Civil Defence of Merowe Airport responded ("Ḥarīq yaltaham ʿadadan min ʿashjār al-naḫīl bi-manṭiqah shaba," *Nubokeen*, 15 March 2016. http://nubokeen.com/web/حريق-يلتهم-عدداً-من-أشجار-النخيل-بمنطق/ [archived]).

61. A purely political reading is challenged, for instance, with regard to the relatively swift, though inadequate, response reported for Kerma Balad in September 2014, and the complete lack of response to a fire on Badin island in July 2015, which are located adjacent to each other (cf. "Ḥarāʾiq hāʾil yaltahim (1500) shajarah naḫīl bi-manṭiqah kirmah al-balad bil-wilāyat al-shimāliyyah," *Radio Dabanga*, 25 September 2014. https://www.dabangasudan.org/ar/all-news/article/حريق-هائل-يلتهم-1500-شجرة-نخيل-بمنطقة-كرمة-البلد-بالولاية-الشمالية [archived], and Al-Jarīdah, "Ḥarīq hāʾil fī ʿashjār naḫīl, ġābah manṭiqah suqdān," *Al-Rakoba*, 3 July 2015. https://www.alrakoba.net/1857151/حريق-هائل-في-أشجار-نخيل-وغابة-منطقة-سقد/ [archived]). Another newspaper that reported on the latter event, Al-Sayḥa, only quoted the NCP chairman of Kerma's claim of "participation" by Borgaig locality's Civil Defence Administration (*ʿidārat al-difāʿ al-madanī*) and the interest of the regional government expressed by the visit by the General Director of the Civil Defence Administration on the following day to train 50 young people on fire safety measures ("Ḥarīq yaqaḍī ʿalā al-miʾāt min ʿashjār al-naḫīl bil-shimāliyyah," *Al-Sayḥa*, 3 July 2015. http://www.assayha.net/play.php?catsmktba=3334 [archived]). In the case of a fire on Bullinarti, near the

In official statements, this often took the form of shifting blame: fires were caused by citizens' negligence; civil defence was hampered by a lack of funding from the centre. The 2016 workshop on date palm fires, for instance, had governmental officials proclaiming their commitment to providing protection for citizens.[62] However, it concluded with a recommendation that most uses of fire in agricultural areas, such as burning grass, charcoal-making and the honey harvest, should be halted, especially where there were no available means to extinguish a fire. It also vowed to develop a culture of safety that would prevent fires from starting and spreading, such as by throwing away burning cigarettes, failing to maintain the recommended distance between date palms and/or using the spaces below them for agricultural purposes and leaving dry matter there. In addition, leaving old, high palms standing was discouraged, as their dry leaves could more easily be ignited by high winds carrying flames and because they added to the dry matter there and hindered access if they fell.[63]

These recommendations were in line with a central feature of the regional government's handling of the subject: generally, it was claimed that the fires were mostly caused by inexperienced workers who used fires in inappropriate ways, not only in the areas of the planned dams, but also in all areas in the Northern State, in combination with inadequate cleaning, reduced economic interest in date palms and natural factors. The lack of response by the civil defence forces, on the other hand, was mostly blamed on a lack of funding for equipment by the central government, especially the State Ministry of Infrastructure and Planning at the Ministry of Interior.[64]

To contextualize this claim, it may be helpful to look at existing governmental response systems for forest fires more generally. Gaining insights into the extent and impact of fire events on tree populations in Sudan is a challenge. In terms of

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town of Argo, the civil defence reportedly refused to go on to the island, complaining of the rough terrain, which would damage their fire truck (see the quotation from the Al-Shirūq article dated 26 May 2010 in "Man warāʾ ḥarāʾiq ʿashjār al-naḫīl bil-shimāliyyah," *Al-Rakoba*, 6 September 2013. http://www.alrakoba.net/articles-action-show-id-34986.htm [archived]).

62. These promises were made repeatedly over the years, specifically the formation of investigative committees and the provision of additional, better-equipped fire stations, for instance in Dalgo and Abri (see, for example, "Ḥarāʾiq hāʾil yaltahim (1500) shajarah naḫīl bi-manṭiqah kirmah al-balad bil-wilāyat al-shimāliyyah," *Radio Dabanga*, 25 September 2014. https://www.dabangasudan.org/ar/all-news/article/حريق-هائل-يلتهم-1500-شجرة-نخيل-بمنطقة-كرمة-البلد-بالولاية-الشمالية [archived]).

63. "Al-difāʿ al-madanī yakshif malābisāt ḥavāʾiq al-naḫīl bil-shimāliyyah," *Nubokeen*, 2 June 2016. http://nubokeen.com/web/الدفاع-المدنى-يكشف-ملابسات-حرائق-النخ/ [archived]; Al-Intibaha, "Al-shimāliyyah tuḥaḍḍir min ḥarāʾiq al-naḫīl," *Al-Nilin*, 3 June 2016. http://www.alnilin.com/12783595.htm [archived].

64. This argument was also presented in a press conference with the newly-appointed Northern State Governor at Tayba Press in Khartoum on 25 August 2016, which was attended by Enrico Ille; see also the Deputy Governor on the same issue in October 2016 (Akhir Lahza, "Ḥakūmat al-shimāliyyah: ḥarāʾiq ʿashjār sababihā al-muzāriʿūn," *Al-Nilin*, 19 October 2016. http://www.alnilin.com/12818363.htm [archived]).

formal structure, there is a bottom-up forest monitoring system under the umbrella of the Forest National Corporation (FNC), with monthly and annual qualitative and quantitative reports with a focus on "reserved forests, afforestation and reforestation areas, harvest and production, fires, personnel, etc." (FCPF & UN-REDD 2014, 55). This does not necessarily cover the study area for the case at hand, as many tree populations are not classified as public forests, but are managed privately—by individual farmers, private companies (gum Arabic is a special case)—or by the community (ibid., 56). While in 2014 the Northern State was assessed to have 20,507.258 hectares of forest, the second-lowest in Sudan (FAO 2014, 7), much of the date palm population we are discussing here thrives on an unclearly defined combination of agricultural and forest land.[65]

While there is therefore some basis for counting tree populations, an assessment of their health is much less accessible. In general, damage from pests, diseases and hazards is virtually unreported, and those reports that do exist often focus on specific core areas (FCPF & UN-REDD 2014, 65). This is even more the case in relation to fire statistics, which are presented in a highly aggregated form, and are specific to limited areas and incidents that often relate to rangelands (GoS 2014, 28–9).[66] In government publications, wildfires in general and forest fires specifically are frequently described as a "serious problem" without much more detail (see, for example, GoS 2009, 34; GoS 2014, 28; GoS 2015, 54). When numbers are given, their origin remains mostly obscure; Sudan's Fourth National Report to the Convention on Biological Diversity, for instance, merely stated that "fire is responsible for the destruction of 250,000 tons" out of 4 million tons of wood "annually removed for various purposes from the natural and managed forests of Sudan" (GoS 2009, 34).

Other reported (but also aggregated) information concerns the area of land and forest burned annually, which averaged 248.554 hectares a year between 2003 and 2012, according to the country report in the FAO's 2014 global forest resources assessment (FAO 2014, 67–8).[67] Sudan's First State of Environment and Outlook Report 2020, on the other hand, quoted an annual burned area of forest, woodland and rangeland between 2010 and 2015 of slightly above 1 million hectares (UNEP

65. The 2012 land cover atlas of FAO still classified 29,635 hectares as forest (FAO 2012, 34).

66. A general review of wildfire management in Sudan has noted that this has been the situation at least since 1980, with the exception of the GTZ-financed documentation of Jebel Marra in the 1990s (Bayoumi 2001).

67. The absence of numbers on fires indicates that tracing is done through remote technologies rather than a detailed database. The same report clearly noted: "FNC never had studies on wild forest areas, had observations and control on reserved, and permanent and sustainable forests. There is a knowledge with some Sudanese experts on the techniques of locating fire places with remote sensing technology, but this information is not reachable and no publications for free. FNC or the country ought to pay attention to wild fires. How this will be solved I do not know." (FAO 2014, 69)

2020, 174).[68] A few areas, such as Dinder National Park, have received greater attention.[69]

What remains unclear is what this means for actual fire management. A 2001 assessment of the situation highlighted a historical line from the colonial to the early post-colonial period, up to the 1960s, when wildfire management fell under the responsibility of Native Administration leaders, "under the supervision of the Range and Pasture Department and in close collaboration with the Forestry Department" (Bayoumi 2001, 116), with a clear focus on Kordofan and Darfur. Forest policies continued, such as a 1989 Forest Law on reserved forests, in which regulations on fire lines and the prohibition of the use of fire in these forests are laid out. However, with insufficient funds and almost no fire management structures, whether at a government or municipal level, the diagnosis looks bleak: "A fire management organization is not in place. […] Early warning, detection and monitoring systems are not available. […] Fire research is absent" (Bayoumi 2001, 116).

Community-based forest fire management programmes have been in the planning stage (FCPF & UN-REDD 2014, 67), and some existing community-based forest management system have been documented (see, for example, Hasan 2006; Nawal 2015), but overall there is little indication that the situation has changed substantially since 2001. There have, however, been projects for a more general improvement of the data situation: in the mid-2010s, there were plans for a National Forest Inventory in the context of the REDD+ effort (FCPG & UN-REDD 2014, 125); and in the late mid-2010s, a collaboration between the FAO, the Forests National Corporation and the Remote Sensing & Seismology Authority (RSSA) was intended to create a historic wildfire map (2000–2018) and improve monitoring, with a focus on Darfur, Kordofan and Blue Nile (Kukharava 2019). In addition, workshops on wildfire management and monitoring took place in 2018 and 2019, involving the FNC and the Sudan REDD+ programme.[70]

68. The State of Environment report highlighted *Acacia senegal* plantations, the source of gum Arabic, as one of the main affected areas among the over 1 million hectares of burned forest land. At the same time, the same species was reportedly the one favoured for reforestation campaigns, which were said to have planted as much as 210,000 hectares of trees in 2016 (FCPF & UN-REDD 2014, 80; UNEP 2020, 174).

69. A rare study on forest fires in the park monitored it for the period from 2010 to 2014 by remote sensing and GIS, using the NASA database and the global weather archive (Kawther et al. 2019). The study found that between 12% and 25% of the park area had experienced fire during the study period. It did not refer to a study on wildfires by the Sudan Academy of Science (2000–2008), the results of which had been included on the Sudan Evidence Base Programme website (https://www.sudandata.org), which has since disappeared. With up to a 39% burned area, its numbers were generally higher, and the fires were concentrated in November.

70. See "Workshop on Wildfire Management and Monitoring in Sudan October, 30, 2018," *Redd+ Sudan*, 31 December 2018. https://www.reddplussd.org/index.php/en/news-events/all-news/item/275-workshop-on-wildfire-management-and-monitoring-in-sudan-october,-30,-2018 [archived], and "Training Workshop on the Monitoring and Mapping of Forest Fires," *Redd+ Sudan*, 31 December 2018. https://www.reddplussd.org/index.php/en/news-

As of 2021, the outcome of these initiatives remained unclear, however, although the consistency and structural solidification of the issue, even without the NCP elites at the helm, appeared in April 2021. Two years after the deposition of Omar Al-Bashir, the news of another date palm fire sounded disturbingly familiar:

Fire causes great losses in Gargud, Dalgo Locality, state officials completely absent 3 April 2021 **Nubokeen, Dalgo** A civil defence force of Dalgo Locality and citizens of Gargud village are trying to gain control over a fire that broke out in the date palms of the village midday yesterday. Great damage was caused to houses and farms, while the officials of the locality or the administrative unit remained completely absent, notwithstanding the great losses the village experienced and the continuing threat to date palms, houses and animals from the fire. It should be mentioned that another fire had broken out in the village a week before, but it was brought under control by the civil defence force of Dalgo Locality, which suffers from large gap in workers and equipment, although the area faces a risk of date palm fires and in spite of repeated demands directed to the regional government to support and to rehabilitate this vital and important service.	حريق يسبب خسائر كبيرة بقرية قرقود بمحلية دلقو وغياب تام للمسؤولين أبريل ٣, ٢٠٢١ نبوكين – دلقو تحاول قوة من الدفاع المدني من محلية دلقو ومواطني قرية قرقود، السيطرة علي حريق شبّ في نخيل القرية منذ ظهيرة الأمس، مما تسبب في خسائر كبيرة في المنازل والمواشي، مع غياب تام لموظفي المحلية او الوحدة الادارية، رغم الخسائر التي تعرضت لها القرية وتعرّض المزيد من النخيل والمنازل والحيوانات لخطر الحريق والجدير بالذكر أن حريقاً آخر نشب في القرية قبل أسبوع، ولكن تمّت السيطرة عليه بواسطة قوّة الدفاع المدني بمحلية دلقو، والتي تعاني شحّاً كبيراً في العاملين والمعدات، بالرغم من أنها تواجه خطر حرائق النخيل بالمنطقة، وبالرغم من المطالب المتكرّرة لحكومة الولاية لدعم وتأهيل هذا المرفق الحيوي والهام.

The argument that areas were being targeted, whether by arson or negligence, had been buttressed by Al-Ḥassan Hāshim with reference to other regions, such as the town of Shehibi about 35 kilometres south east of the Gallabat/Metema border crossing between Sudan and Ethiopia, where a fire broke out on 5 May 2015 and was dealt with by firemen from Sudan *before* the Ethiopian firefighters arrived.

In this instance, Al-Ḥassan argues that it was not a question of non-volitional negligence, but rather one of intentional negligence that became the object of identifying responsibility. In his view, a government's first duty is to protect citizens and their property, but the Sudanese government has not begun any kind of investigation—or at least it has not published any results—and there have been no court cases, no compensation, no provision of civil defence equipment, and so on since 2005. The government repeatedly blamed the issue on the negligence of farmers, but if these patterns of blame were followed to their natural conclusion, he concluded, the laws against criminal negligence, which exist, should be used to impose fines and should be buttressed by a law protecting date palms. However, no such procedures were adopted at any level of government he contacted, whether they be local administrations, regional governments, ministries, etc.

events/events/item/297-training-workshop-on-the-monitoring-and-mapping-of-forest-fires [archived].

Political economy

This resilience of the notion of a legal order and institutional solutions is an interesting topic, but we will focus here on date palms as an issue for economic policies and political economy. According to Al-Ḥassan Hāshim, date palms began to lose not only their economic but also their central social importance. The generation of Al-Ḥassan, who is now in his sixties, had experienced this in the form of a creeping process since the 1960s. In fact, he viewed the Aswan High Dam as the starting point for these broken relations, as economic and social processes are not independent from each other. Previously, Khartoum had not been on the map of date trade from northern Sudan as it was directed towards Egypt, where a large population meant a large market; ships took date palm products there and brought back oil, sugar, tea and clothing. The High Dam certainly broke this link, but it did more than that: since at least the 1950s, the population around Halfa and Faras had been pursued by what he called the nightmare (*al-ḥulm al-muzʿij*) of the High Dam, a collusion between the Egyptian and Sudanese governments against the Nubian population that was manifested in the 1959 agreement on the distribution of the waters of the Nile.

Since that time, the ghost of negligence (*ihmāl*) has been upon them, he continued, as no effort was ever made to support those who had stayed behind rather than moving to Khashim Al-Girba, the resettlement scheme: the unique Nubian dates should have been subsidised, for instance, by government purchases, by declaring them to be a strategic commodity, like sorghum and wheat, or by opening up new trade routes. This never came about, and agricultural policies favoured foreign and NCP investors rather than the local population. A climax was reached when Presidential Decree 206 of 2005 handed over huge tracts of agricultural land in the Northern State to the Dam Implementation Unit. This signalled the onset of numerous large-scale investment projects.[71] In the meantime, about 250,000 new date palms were planted as a part of schemes around the capital, in Omdurman, in Bahri and south of Khartoum by companies such as Al-Qūsī, Nifeidi and Al-ʿArabī, who then began to distribute their new products to the Sudanese population during Ramadan.

In Al-Ḥassan Hāshim's opinion, it was by no means a coincidence that the same number of date palms he found had been destroyed were then planted in central Sudan. For him, it was the fulfilment of a systematic marginalisation of the Nubian areas and an empowerment of commercial interests close to the Ingaz regime. This was added to by numerous other issues, or "instruments," as Fāris termed it: the land grabbing, the pollution from mining, the erosion of islands, the withholding of access to electricity, the impact of the Hamadāb (Merowe) Dam, the separation of River Nile State from the Northern State (to divide the population and their common causes), the leakage of groundwater into archaeological sites (from irrigation schemes), the smuggling of antiquities etc; a combination of ten interconnected instruments of marginalisation and political violence.

71. This decree was abolished on 6 January 2021 (Decree 3 of the Ministry of the Cabinet).

Circumstances

If we take his train of thought still further, there appear to be more than just economic reasons behind planting new date palms and celebrating those that recovered by themselves in this region; there are reasons for doing this even if the palms do not promise profitable returns: taking care of date palms represents an insistence on their function of maintaining the ties between residents, long-term emigrants and their homelands, a kind of self-oriented social engineering of a population that prides itself on having brought forth Sudanese nationalist, revolutionary, but also fiercely Nubian personalities like Khalil Farah, Muhammad Wardi, Farouq Kadoda and Suad Ibrahim Ahmed.[72]

Fāris made the point that even if negligence was involved in keeping orchards "clean," leaves do not ignite themselves, and Al-Ḥassan Hāshim made a similar claim. Both seem to indicate that human agency was inevitably involved. If we consider that so-called wildfires begin without any human involvement, we might think of instances where this is not necessarily the case,[73] but while other-than-human agents do not play a major role in their interpretation of date palm fires, both acknowledged the existence of conducive environmental circumstances. The impact of desertification on changes of plant life was noted, as was the increasing appearance of wild desert animals such as snakes and scorpions close to the Nile. Al-Ḥassan mentioned the heat-related wildfires in the USA, Mexico and the Nubian areas of Egypt that he knew about from the news, and climate change and rising global temperatures were also familiar issues. He noted that miners and other "visitors" cut down plants and trees for food and fire, exacerbating the effects of global climate change, an issue he considered to be addressed by larger industrialised countries as well as by Sudan in its capacity as a signatory to international agreements.

However, Al-Ḥassan Hāshim made it clear that his argument had a political function in the struggle against an Islamist regime whose supremacist agenda against Nubians and Darfuris and others, and whose exploitative schemes for their homelands, he asserted, were globally known. He trusted that building his analysis around the well-known nature of the regime would prevent him from being called unscientific, a charge he clearly valued avoiding. Leaving aside his argument at this point, we can take note of the multiple levels of accusation reported here, where

72. This argument is central to the audiovisual documentation by the Ayin network on this issue (Shabakah ʿāyyin, "Ḥarāʾik al-naḫīl fī al-wilāyah al-shimāliyyah… al-dawāfiʿ wa al-ʿasbāb," *Ayin Netw*ork, 19 April 2018. https://3ayin.com/حرائق-النخيل-في-الولاية-الشمالية-الد/ [archived]; see also the article "Naḫil shimāl al-sūdān … ʿayād ḫalf al-ḥarīq," *Ayin Network*, 31 July 2017. https://3ayin.com/نخيل-شمال-السودان-أيادٍ-خلف-الحريق/ [archived]).

73. The self-ignition of dry leaves and other organic matter is another line of argument that deviates from political accusations, and is one of the explanations suggested by the Sudanese Date Palm Society (see, for example, "Mā ʿasbāb musalsal ḥarāʾiq al-naḫīl shimāl al-sūdān?", *Independent Arabia*, 2 November 2020, https://www.independentarabia.com/node/165421/تحقيقات-ومطولات/ما-أسباب-مسلسل-حرائق-النخيل-شمال-السودان؟ [archived]). However, one of the few academic studies of forest fires has noted that most of these fires in Sudan are man-made (Amin 2008, 12).

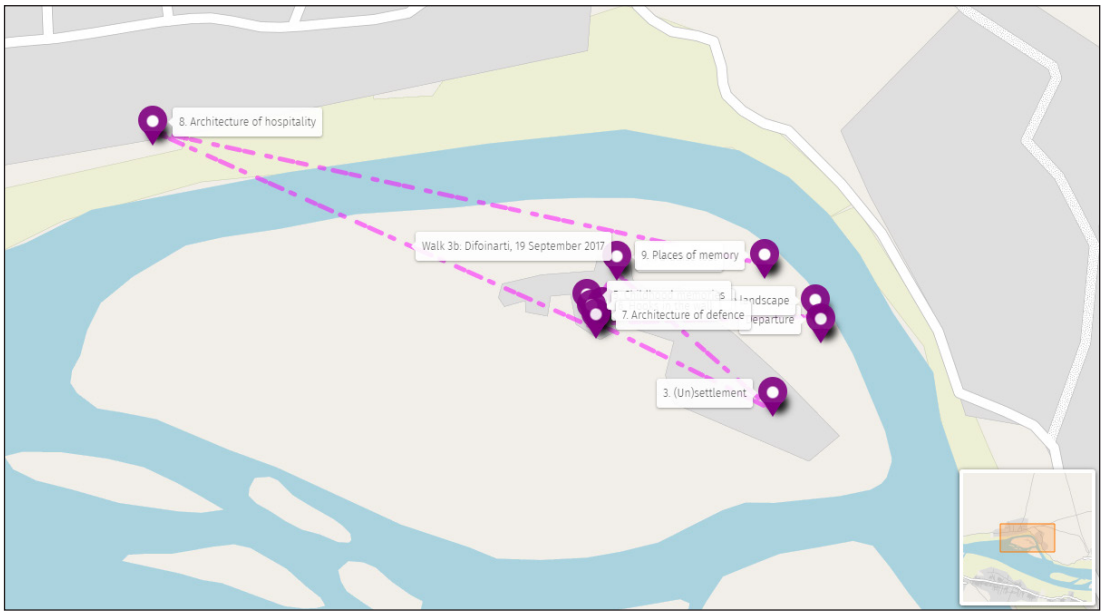
a specific event or phenomenon was treated as only one instance or supporting element within a much broader pattern derived from a history that was presumed to be universally acknowledged.

Case study 3: Difoinarti

Georeference: 19°56’46.8”N 30°30’01.8”E (geo:19.9462,30.4973)

Case study 3: Difoinarti (Satellite view)
Source: Google maps. See full screen.

Walk 3a: Difoinarti, 4 March 2017 (map)
See full screen: http://bit.ly/3kUCKXw.



Walk 3b: Difoinarti, 19 September 2017 (map)
See full screen: http://bit.ly/3DtsVWQ.

Walk 3a: Difoinarti, 4 March 2017 (text): See Appendix
Download PDF.
On ArcGIS Storymaps: https://storymaps.arcgis.com/stories/b5f5fe7763a144af9021cf6a11fa4513. / On Umap: http://bit.ly/3kUCKXw.
Persistent identifier (text and images): https://doi.org/10.5281/zenodo.7350482.

Walk 3b: Difoinarti, 19 September 2017 (text): See Appendix
Download PDF.
On ArcGIS Storymaps: https://storymaps.arcgis.com/stories/eab76daa10384206a945d48cd459f734 /On Umap: http://bit.ly/3DtsVWQ.
Persistent identifier (text and images): https://doi.org/10.5281/zenodo.7350537.

Interpretation: Historical disconnection

One of the harrowing problems with writing about forest fires is the limitations verbal expression imposes on describing its infernal, unbounded quality, its vicious hunger and power. Equally, it is not easy to come close to the emotions and feelings that arise when something of profound importance is eaten away by these fires in front of one's eyes. It becomes even more of a challenge when this significance is nourished by multiple temporal layers formed by recent events, childhood memories, social memory and historical narratives.

We will now take another look at ʿAbd al-Ghanī's thoughts during the walks in the light of two other interviews conducted on 19 September 2017. Once again, they related to the value of date palms and what was lost through the fires. What transpired were histories of past community prosperity and hospitality, and of past abilities to defend against animosity.

Prosperity

We have pointed out that the damage to date palms—other than that suggested by the statistics—was not total, but that the fires left date palms in very different states, from complete death to full recovery in the following season. While recovery is testimony to the resilience of the palm's heart, its inner growing bud, it also points to many questions around a full economic assessment. Does the palm maintain the same level of productivity? Had its products been harvested before? Will harvesting still take place where the trunks have been flattened by fire but the dates are easier to reach,[74] and if so, who benefits from the harvested dates?

The last question refers to income structures around date palms, which were discussed with a date palm owner in mainland Difoi who had lost all his dates in the 2016 fire.[75] He was not heavily hit financially by the fires, as his regular monthly income (about 3,500-4,000 SDG, €515-588) came from trading in spare parts in Khartoum. In addition, there had been a steady decline in productivity since the 1990s: one sack of dates harvested per date palm was now considered to be a "good" harvest, but would have been disappointing in the past. In his situation, one sack was also what he obtained personally from an entire season after the proceeds of the 30 sacks harvested in 2015 had been distributed among about 340 heirs.

He was aware, though, that the annual date production had much greater significance for others, especially those who depended on it as a cash crop to pay their debts, such as the often landless and palmless collectors of *tugin fenti*. This Nobíín term describes dates that have fallen to the ground and are permitted by land and palm owners to be collected by non-owners. During harvest season, groups of people, mostly women, as on Difoinarti, could be observed moving through the fields with buckets or sacks, picking up dates from the ground. The dates collected in this way could amount to as many as 4-5 sacks gathered by one person over the whole harvest season, and thus bring about 3,000 SDG (€441) to a low-income household, depending on the seasonal prices.

For people like ʿAbd al-Ghannī, however, the current situation was only a shadow of the island's former prosperous self as a major historical source of dates for the entire Mahas area and beyond. When we looked at the square he described as an "evacuated landscape of wealth" during Walk 3b, his eyes wandered, and he spoke of a place where thousands of sacks of dates used to be distributed to those who flocked to it, a place of plenty that was now empty.

Another of ʿAbd al-Ghannī's concerns was directed more towards the inside. Disconnection from history was a result not just of fires breaking out, but also of

74. In several areas, the use of long ladders is not routine in harvests, and labourers use the stumps of cut leaves to climb up the trunks. The lower parts of date palm fronds have spines. Since the fronds grow in all directions, their spines form a kind of protective wall for an approach from below. This is less true where most of the fronds are still upright in young or recovering date palms. In addition, upward mobility is also less impeded if no dry leaves are hanging down from the canopy.

75. This unstructured interview was conducted by Enrico Ille on 19 September 2017 in Difoi.

a slow erosion of the region's demographic stability and continuity. Being a place people come to was not just a proud tradition on the island of Difoinarti: to him, the guesthouse (*masīd*) on the mainland, which is shown in Walk 3b, was a symbol of generosity towards visitors and those in need of support that went beyond gaining a reputation. There was a practice, he said, for part of one's date harvest to be placed there anonymously, a general sense of reciprocity that was diametrically opposed to the minutely detailed calculations of an inheritance.

However, the over-60s harboured doubts about a future younger generation, as cursory, seasonal visits from Khartoum or abroad—rather than life paths—brought most young people to the area. During our visit on 19 September 2017, it transpired that ʿAbd al-Ghannī had made a written agreement with a friend to plant over 100 palms that already imagined future generations benefitting from it, but also prepared for the possibility that those who did the harvesting then would no longer be trusted friends, unlike those who were planting them now; it was a written manifestation of an eroded trust in continuity.

Defence

When a smaller fire broke out in 2017, ʿAbd al-Ghannī saw a familiar scenario taking place: the police arrived after the fact, took photos but no samples, interviewed eyewitnesses, left and never reported back to the population. It was not only in his account that this image emerged of public servants who seemed to see no duty to have any active contact with the public, but rather the right to need to be pursued before they reacted.

In an interview, the then Agricultural Secretary of the Popular Committee in Difoi, ʿAbd al-Jabār, spoke about his view of the situation and his efforts to elicit a response from the state apparatus after the fire of September 2016.[76] He was a member of both the NCP and the Committee for the Support of the Kajbar Dam (*al-lajnat al-muʾāyyidah li-sadd kajbār*), and he claimed descent from a former *ʿumda*, or Native Administration leader, of Jeddi. He himself had lost about 700 date palms he had cultivated via sharecropping to the fire in Kajbar,.

In his interview, he acknowledged the various opposing arguments about what happened, from a government plot to force migration to the palm tree owners' fault due to their negligence (*ihmāl*). He stated that the geographical breadth of the fire locations, which covered the whole region from Akasha to Dongola, suggested that there was no specific target. But he also did not dismiss the fact that "the government's" objectives benefited from them, if not through active agents, then because of the lack of response. In his opinion as the man in charge of agriculture for the official Popular Committee, a kind of local administration unit founded by the NCP throughout the country, this corresponded to a situation in which committee members were used as security agents rather than being provided with the means to provide services. Still, he believed, the fires themselves were the result of a general

76. This unstructured interview was conducted by Enrico Ille on 19 September 2017 in Difoi.

danger—fire breaking out during the hot season—exacerbated by a neglect of safety principles such as pruning and burning dry leaves at a long distance from grass, palms and other trees. This was facilitated by a change in the labour force, which had been made up of friends and relatives of the owners up to the 1970s but which had shifted to outsiders.

He recounted the events after the outbreak of the large fire of 2016 from his point of view. When the fire was discovered, the police were called by a member of the Popular Committee. It was during Eid al-Adha, one of two official Islamic holidays, and the officer in charge was on holiday, so they called their local member of parliament (MP) to inform him of the lack of a fire emergency response. The MP directed them to the district commissioner (*muʿtamad*) in Dongola who told them to wait for 48 hours.[77] After these two days, the Deputy Governor and the Executive Officer in Dongola arrived with a camera team from Sudan TV, the state television.[78]

After these speeches full of promises of assistance, a committee was formed made up of the Executive Officer, the Agricultural Director of Dalgo Locality, the head of the local Popular Committee, the village sheikh (*shaykh al-qarya*) and some date palm owners. Four members of this committee were appointed to form a technical sub-committee to assess the damage; they counted 800 damaged date palms in *sāqiyyah* 19 and 750 in *sāqiyyah* 20 and 21.[79]

They requested payment out of the zakat budget to compensate those who only had *tugin fenti* income during the harvest season and normally paid their debts with it.[80] In addition, they demanded water pumps to cultivate the burned areas. One letter was sent on 3 October 2016 from the District Commissioner of Dalgo to the Minister of Agriculture, Animal Resources, Fishery and Irrigation, describing the agricultural areas on Difoinarti as covering 300 feddan (about 1,260,000 square metres) and requesting agricultural machinery and a boat, "as discussed in our phone call" (see the image below). The technical report was also sent to the Executive Officer, in a letter four months later, who promised to visit. On the given day they slaughtered a sheep and prepared breakfast, only to find that they had been stood up.

77. Being put "on hold" in this way was a recurring experience for people making an emergency call. In November 2012, the residents of Firket heard from the Civil Defence Police in Dongola that they could not move without permission from the Governor, while the police in Wadi Halfa reported that their fire truck was not operational ("Ḥarāʾiq al-naḫīl bayn ʿsiyāsat al-ʿarḍ al-masmūmʾa wa al-laġaz ʿal-muḥaṭṭāt ġayr al-marʾiyyah," *Al-Taghyeer*, 8 October 2016. https://www.altaghyeer.info/ar/2016/10/08/حرائق-النخيل-بين-سياسة-الأرض-المسمومة/ [archived]).

78. The Deputy Governor was Muḥammad ʿAbd al-Raḥmān Diyāb, who made an official commitment to the state news agency SUNA that the government would stand with those who had suffered losses from this fire. The same SUNA news item also claimed in the name of citizens of the area that the authorities and the civil defence forces had come to the island swiftly and helped to extinguish the fire (SUNA, "Ḥarīq bi-jazīrah difūī bi-maḥaliyyah dalqū bil-shimāliyyah yaḥdaṭ ḫasāʾir kabīrah fī ashjār al-naḫīl," *Al-Nilin*, 16 September 2016. http://www.alnilin.com/12810952.htm [archived]).

79. Difoinarti contains nos. 19-21 of the *sāqiyyah* system, extending from Kajbar to Difoi South.

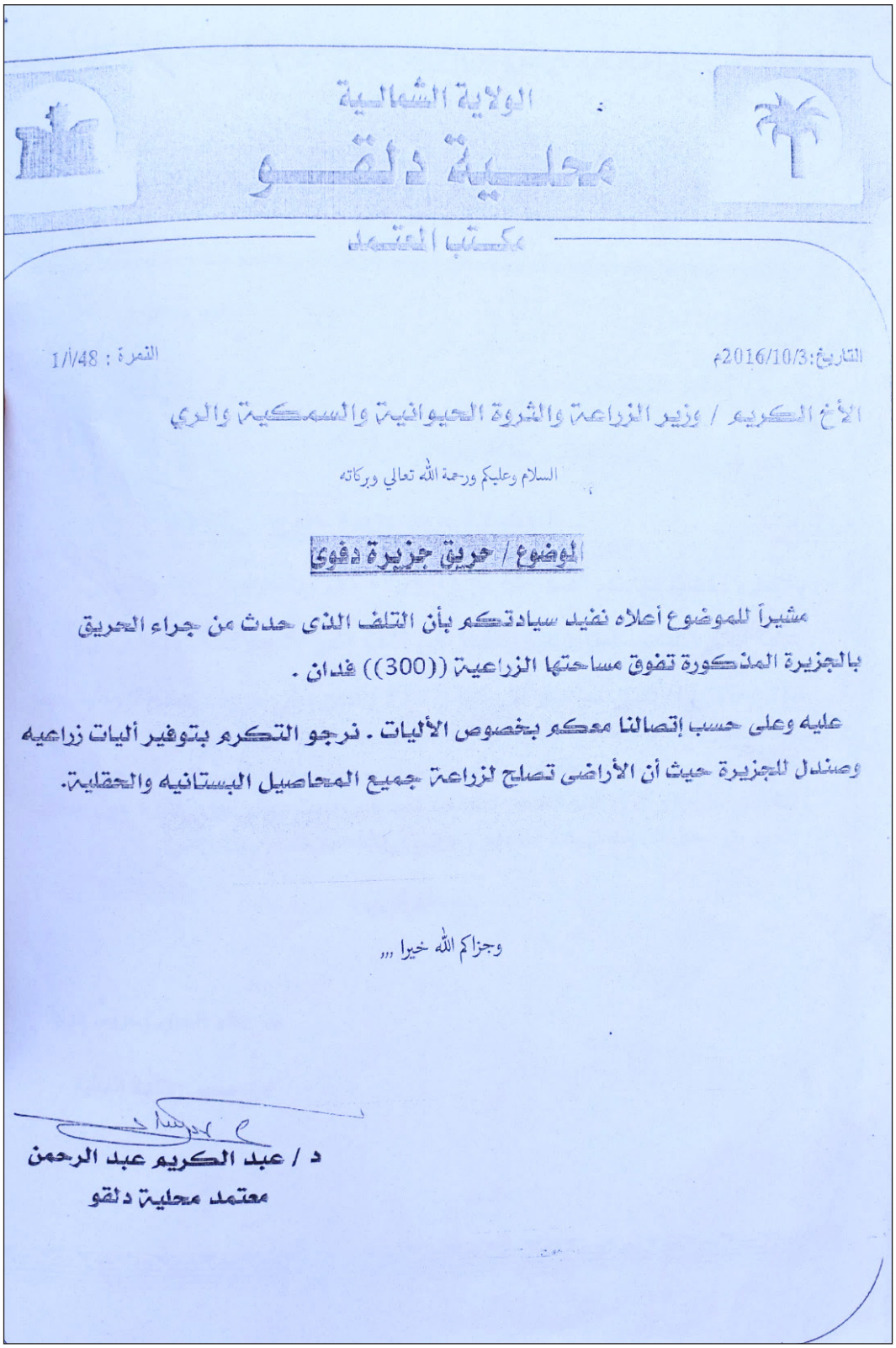
80. Zakat is an Islamic principle of wealth redistribution which is nowadays mostly organized through government institutions, in Sudan the Zakat Chamber (*daywān al-zakāt*).

Image 8. Area affected by date palm fire on Difoinarti, measuring 31,000 square metres (about 7 feddan)
Source: Georeferenced photos from walking interview, imported into Garmin's Basemap, GPS positions exported to Google Earth Pro and combined into the highlighted area.

Instead, ʿAbd al-Jabār, a member of the ruling party, found himself moving from office to office in vain. The Agricultural Director addressed him as a fellow NCP member, saying "You know the situation of the party, Brother," and promised to let him have one pump for each *sāqiyyah* as a gift from the District Commissioner that he could present in his own name. When the pumps arrived, they were missing the accessories that made it possible to use them. He continued to write, to the Ministry of Agriculture in Dongola, for instance, with detailed reports and calculations of the required compensation. However, during his numerous visits to Dongola, which were paid for by a joint fund provided by the date palm owners to the technical committee, he found himself having to defend the numbers for the damage that had occurred. A year after the fire, he received a letter from the Ministry saying that the Northern State, one of Sudan's main gold-producing states, had no budget item (*banda*) that could be used for such a purpose.

Thus far, this is ʿAbd al-Jabār's account. The claim of political vulnerability by a party that is globally known for its authoritarian, exploitative rule certainly gave us pause; however, we would like to focus here on the changing forms of governance that shine through when this narrative is juxtaposed with the historical dynamics ʿAbd al-Ghannī referred to during Walk 3b.

The composition of the investigative committee—representatives of the state government, the Ingaz-era Popular Committee, the former Native Administration and private owners—actually reflected statistical knowledge production through successive layers of local rule and taxation: the counting of date palms for taxation purposes, which was only abandoned at the beginning of the 2010s, had most recently been the responsibility of the Popular Committee, which still relied on the



الولاية الشمالية
محلية دلقو
مكتب المعتمد

التاريخ:2016/10/3م النمرة : 1/أ/48

الأخ الكريم / وزير الزراعة والثروة الحيوانية والسمكية والري

السلام وعليكم ورحمة الله تعالي وبركاته

الموضوع / حريق جزيرة دفوي

مشيراً للموضوع أعلاه نفيد سيادتكم بأن التلف الذى حدث من جراء الحريق بالجزيرة المذكورة تفوق مساحتها الزراعية ((300)) فدان .

عليه وعلى حسب إتصالنا معكم بخصوص الأليات . نرجو التكرم بتوفير أليات زراعيه وصندل للجزيرة حيث أن الأراضى تصلح لزراعة جميع المحاصيل البستانيه والحقلية.

وجزاكم الله خيرا ,,,

د / عبد الكريم عبد الرحمن
معتمد محلية دلقو

Document 1. Letter from the District Commissioner of Dalgo to the Minister of Agriculture, Animal Resources, Fishery and Irrigation, 3 October 2016
Source: Photographed from hardcopy.
Persistent identifier: https://doi.org/10.5281/zenodo.7586291.

Translation
Northern State
Dalgo Locality
Commissioner's Office
Number: 1/A/48
Date: 3/10/2016
Dear Brother / Minister of Agriculture, Animal Resources, Fishery and Irrigation
Greetings and God's Mercy and Blessings Be Upon You
Subject: Dafoi Island Fire
Referring to the subject above, we inform you that the damage from fire on the mentioned island exceeds an agricultural area of 300 feddan.
Accordingly and following our communication concerning machinery, we kindly ask for the provision of agricultural machinery and a motorboat for the island in order to rehabilitate the land to cultivate all sorts of horticultural and field crops.

May God reward you with good fortune
[Signature]
Dr. ʿAbd al-Karīm ʿAbd al-Raḥmān
Commissioner Dalgo Locality

sheikh, who had been in charge until the dissolution of the Native Administration system in the 1970s and was brought back by the Ingaz regime in the 1990s.[81] The Native Administration system had been inherited from British colonial rule, which had taken over date taxation from the Mahdist state as its main source of revenue and the most accurate demographic indicator from what was then the Northern Province.[82] In turn, the Mahdists had dealt with a patchwork of small royal entities in the northern areas that never came under their full control (Makkāwī 2000).

However, the multi-storey houses ʿAbd al-Ghannī had shown Enrico Ille still hinted at the time in the region's history and the preceding centuries when it had resisted control by major empires such as the Funj/ʿAbdallāb sultanate and the Ottoman Empire, and when local royal courts defended the rule they had established over an indigenous population through fortified "castles." We suspect that for people such as ʿAbd al-Ghannī nothing could be further away from that age of self-defence than petitions humbly asking for compensation from a government that was suspected of being behind, or at least not excessively concerned with, the events that had prompted this request.

81. According to ʿAbd al-Ghannī, taxation had been based on 2% of the market price of a sack per palm. Palms were recounted every 10-15 years in order to register new trees and any that had become unproductive.

82. This transition is poorly documented for the study area, but the Intelligence Reports Egypt with appendices on Sudan, especially the reports of 1896, are relatively detailed sources (see overview in Johnson 2004).

Discussion and conclusions

Interpretation

This article discusses the phenomenon of frequent date palm fires in Sudan's Northern State in the 2010s. The origin of these fires was, and remains, a contested issue in the region and among those connected to it through belonging. The fire events led to a plurality of interpretations that in different ways assert a specific overlapping of agency, time and place.

Rather than merely being a variety of interpretations in the narrative reconstruction of a location-specific event, they represent competitive, or even hostile, evidence-making in the context of a tense political environment: as landscapes in this region underwent radical changes—desertification, pollution etc.—pinpointing anthropogenic influences became complicated by major projects on the Nile in the shape of hydropower dams and irrigation schemes whose effects on the river and the local climate were little studied and little understood. Since these projects were often accompanied by substantial population displacements, they became perceived—and fought against—as an instrument and extension of the authoritarian, destructive and exploitative governance represented by the Ingaz regime (1989–2019). At the same time, areas where further dams were planned were already experiencing demographic decline, a development that itself invited explanations that extended from "natural" socio-spatial shifts to the demographic engineering of a regime that was only interested in the undisturbed extraction of resources.

In other words, the dispute around the date palm fires concerned not just the story of what happened, but also what was behind it, its deeper nature. Many of the fires were not observed when they broke out, or else the observer did not come forward after the fact. This lack of observation constitutes what is politically the most "productive" circumstance of the situation, as it drives investigative processes that are concerned with assessing guilt with reference to the conflict dynamics beyond (or behind) the specific event. They also informed purposive documentation, as other researchers, activists and journalists gathered evidence—through eyewitness statements, police reports, photos, news and social media items—to support their own reading of the situation, an illustration of forms of political participation that involve non-local communication and evidence-making, such as digital activism and participatory GIS. The result was directional, but not mutually exclusive, discussions in a number of different media: daily conversations, WhatsApp, social media, news media, press conferences, official statistics and reports, studies by political organizations (especially anti-dam committees) and documentary films. This political entanglement of evidence-making was complicated by social ties, as sometimes the names of perpetrators who were known in the community were not made public in order to avoid court cases or other confrontations, thereby creating additional, albeit erroneous, observational gaps that had to be filled by interpretation.

In our view, the problem presented in this article is a very tricky one, in the sense that none of the competing interpretations can be easily proved or dismissed. In addition, they are embedded in a political struggle in which better (more accurate) evidence does not necessarily create a "better" (more acceptable) argument for those involved, while the destructive effects of recurring fires linger on and raise the stakes. In fact, our own way of doing research was occasionally challenged by other investigating participants, not only for drawing the wrong conclusion, but also for not asking the right questions.

Immersion

Apart from the interpretative complications, we also encountered several intricacies in the process of getting close to or even in touch with the fire events and the losses they caused. The use of remote technologies—especially Google Earth imagery—highlighted in several ways the dangers of a form of spatial analysis that imposes a quantifying gaze: it made the destruction seem negligible in terms of area, levelling out the biographical, economic and sensory depth of loss for representation on a flat screen.[83] This called for qualitative triangulation.

The methods we used to add qualitative depth, especially the walking interviews that form a prominent part of this article, invited their own complications, however. The interviews were not just intended to give us a basic acquaintance with the places we talked about; we also wanted to overcome the linguistic limitations of recreating the material aspects of fires and their aftermath in stationary interviews. We tried to do this by adding a certain degree of co-perception of the items referred to during interviews, which would otherwise have relied on our existing sensory repertoire, or on visual material studied after the conversation.

The verbal recreation of the event still required an act of speech by the eyewitnesses as a descriptive representation of their memory, with us as their audience. Since interviews are basically a verbalisation (and summary) of social worlds, the participants' linguistic practices influenced this specific communicative situation to emerge in a certain way. In addition, the purpose of the talks as perceived by their participants had an inevitable impact on what was communicated, and how.

Meanwhile, an essential difference between perceptions and ideas of all the participants, including our own, remained, inevitably so. The presumption of a unidirectional "easing" of the conversational situation through co-presence, especially as regards its affective and emotional aspects, would simplify the experience: what fills the sensory gaps when past events that have not been shared are described is

83. While we have not followed this up, it may feed into a reluctance among anti-dam activists to use GIS: GPS-based GIS is a tool of the regime, as the privileged access of government and government-allied political actors to advanced GIS technology can be played out against the "weak" evidence of community claims. This advantage was actively pursued by security agents: Enrico Ille's Garmin GPS device, for instance, was confiscated in January 2017 by NISS personnel in Dongola, on the claimed grounds that the right to use and licence it was a prerogative of the agency.

unavoidably autobiographical—the alarmed shouts when seeing a fire, the panicked running, the bursting flames, the crackling, the blasting heat, chasing the wind as it drives the fire here and there and cutting down palms to stop it—palms that were there many decades earlier when they created shade for children to play under, the same former children who were now holding an axe to cut them down. To recreate this environmental sensibility still requires acts of imagination that will differ to a greater or lesser extent from storyteller to messenger to audience, a "greater or lesser" that cannot be known, at least not without another speech-act that will introduce its own divergence.

Walking outside also creates new social situations such as "interference" from chance encounters that change the conversation in ways that may not be readily understandable, especially in short-term or initial research. Similarly, it is not necessarily the case that one will be able to distinguish what statements have just been triggered by this specific route at this specific time. This illustrates not only the many things one cannot know about the participant's lifeworld, knowledge and implicit references—and may never do, even after long fieldwork—but also how the problem of generalisation continues to be a daunting challenge.

The walks also highlighted—rather than solved—the problem of creating co-presence in the context of research. This is also true in a very practical sense: two bodies cannot occupy the same space, and even synchronising movements and perceptions is a task that can only be accomplished within certain limits. Apart from the plain wide routes, there was rarely perfect parallel movement; we gave way to people coming from the other direction, or walked behind each other on narrow paths, went at different speeds when going up a hill, took different angles around an object, and even remained at a distance when taking photos delayed one person but not the other.[84] In addition to the spatial complexity, many things happen at the same time, such as listening intently, talking appropriately, looking for emotional cues, learning the physical environment, taking photos, making mental notes or being careful not to stumble.

Moving in this way through sites of conflict adds further caveats to the whole situation. There were moments where revisiting a place of destruction triggered positive memories of solidarity—an intervention by numerous people and buckets full of river water used to contain a powerful alliance of destruction—the smoker and his cigarette, the grass ignited by the cigarette, the wind taking the sparks into the air and carrying them to the dry palm leaves. Yet if this scenario is indeed also a battle between political alliances, what is it that makes an outsider something other than a tourist, or even a voyeur, in an ongoing conflict like this?[85]

84. An analytical problem that we do not discuss here in any great detail is the fact that GPS-tagged photos do not show what they locate: one sees what one sees from this position, but not what is at this position.

85. This question also implies that creating more and more immersive representations of landscapes of loss does not in itself answer what this does to those whose loss it actually is. "Better" immersion does not do away with the contradictions of the "distant suffering" of

In such a situation, a mundane walk at least has the effect of exposing one to the gaze, questions and expectations of the people who have experienced loss and live with it, rather than merely enhancing one's sense of "ground truth." It is a variation of a researcher's ethical imperative to negotiate access to a social situation and highlights how the ethical boundaries involved in achieving *better* observation are related not only to the question of general consent but also to issues of control over the content and/or the direction of ensuing exchanges. By stressing these ethical thresholds for reaching an "ideal" interview situation from a data mining perspective, with as few uncontrolled variables as possible, a critical reading of open-ended walking interviews can also serve as a cautionary tale against treating a researcher's control of interview situations as the key to achieving "good" results. In other words, what makes this research process less rigorous from a certain epistemological position may also be what makes it defensible as a social act of intrusion into other peoples' lives in the first place, especially in the context of situations of conflict and loss.

A critical reading such as this must also reflect on the circumstances under which access to a certain social situation has been given, or at least has not been prevented. In our own case, this was complicated in several ways. Our access to eyewitnesses was facilitated by social and political connections that predated the research; we were thus, in a way, "compromised." We both consider Sudan as our home, although to a different extent: Enrico Ille through multiple autobiographical ties that have been developed since 2005, and Mohamed Salah by birth and a myriad personal experiences, not a few of which have been marked by harsh political struggles. Mohamed Salah is also among those who belong to the region directly affected by the fires we discussed. He is also part of the reintegration of our analytical processes into the societal debate as one of the voices in the political discourse, including from standpoints and observations that are at odds with the interpretations of those who share our general political position *vis-à-vis* the Ingaz regime. While Mohamed Salah was thus much more directly exposed to the political processes and conflicts we have written about, the different position we hold in relation to ongoing political processes also privilege him when it comes to translating our interpretative work into these processes.

Implication

Finally, this leads us to the implications of the ways we have represented what we found. An observational document that is "good" in more than a reproductive or reconstructive sense—namely a "good representation"—makes a contribution to the interstitial space between political discourse and academic exchange. In other words, epistemic empathy is not just about how we do research, but also what we do with it.

The fires left scars that were far from inconsequential: the girl who was injured by embers on Difoinarti is a reminder of that (see Walk 3a). This elicits further

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those who observe from afar and partake emotionally in a conflict without becoming a part of it (Boltanski 2009).

questions on traces: was her individual memory of date palms now powerfully associated with the injuries caused to her by the fire? Did it join a social memory whose positive associations with and commitment to date palms was already in danger of being eroded, a community injury reflected in an individual one? Not only is her burned skin a record of all the circumstances that failed to prevent the fire or remove hazards from the post-fire landscape, but it may also be seen as an extension of multiple acts of negligence and—if one accepts this interpretation—of political violence.

Responsibility is both complicated and focused here. Whether it is community negligence turning on itself or an aggressive political apparatus turning on residents, or whether it is a conflict between intent and result or between opposing intentions, the whole debate and the scars it relates to serve to document the landscape of political violence under the Ingaz regime and how it continues to dominate social, political and even socio-ecological relations. Our article is thus a part of the long-term project of bearing witness to the political crimes of the Ingaz regime, whether starting date palm fires was one of these crimes or not. This is not about opening old wounds—which are actually still quite fresh and continue to be inflicted—but about becoming involved in the situation by paying tribute to scars and what caused them, and the threads they derive from and speak of.

At the same time, we have applied a principle of mediation here: rather than merely pointing out what is contentious, we also highlight what is consensual. In this case, there are three elements of interpretation: the hazardous landscape left by the lack of pruning; a hot, dry climate that is tending towards becoming hotter and drier; and the lack of an infrastructure of responses to fire (although there are differing views on whose responsibility this is).

Together, they reflect a contradictory situation: while pre- and post-fire negligence (in the sense of not reducing vulnerability to fire) persisted throughout the study period, the date palm fires and recommendations on how to prevent them acquired considerable social and political currency, a reminder that societal debates and social practice cannot be necessarily induced from each other. The ambiguous communicative responses to the fires also reflected the different extent to which they had an economic and social impact, indicating how vulnerability to them was also a reflection of socio-economic relations and socio-ecological dependencies. In a slowly escalating climatic situation, dependencies such as these can be expected to become more complicated for the resident population in the future.[86]

Furthermore, the resilience of date palms, their "strong heart," often meant an independent recovery, an inherent strength, which existed despite human interest or lack of interest in benefiting from the fruits of their reproductive labour (dates). In fact, their survival triggered less exaltation than might have been expected, as their now burned trunks meant that no workers could be found who would make

86. The region belongs to those areas that are projected to experience temperature developments over the twenty-first century that will bring them close to being uninhabitable in a business-as-usual scenario (see, for example, Xu et al. 2020).

the tedious and dangerous climb up them, although it would be easier than usual to reach the dates once they were up there.

There is also a practical implication for understanding negligence not just as a common problem but also as a shared responsibility. Negligence was seen by all our interlocutors as a kind of structural failure of a government that was unable to protect or care for its citizens, although they differed on the question of whether or not this was because of malice on its part. Another form of negligence everyone agreed on was that of the date palm owners. However, if government is understood as a shared responsibility of its citizens, then so is reducing hazards, and in areas with a low population density, state-supported community fire management seems to be a way of sharing this responsibility. A mediatory approach to shared interpretation looks for these points of convergence, which can then be translated back into a societal debate in which we strive, as all interlocutors do, to be heard.

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Appendices

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Pre-walk interview 1: Sai, 24 February 2017

Georeference: N 20°45.441’ E 30°19.171’ [geo:20.757350,30.319517]

I arrived at the eastern shore of the island Sai together with Yūnis, a man in the early twenties whose family had hosted me in the village we both had travelled from. From the landing that we had reached with a small motorboat, we passed private and cooperative agricultural fields, some with ruins of doorways and buildings, and finally arrived at the house of Fa’iz who Yūnis knew from their membership in the same political party and numerous campaigns against the construction of hydropower dams in the region. We found him sitting and smoking together with Faraḥ, a friend and colleague; the Friday prayer had just finished. They were ready to show us the island and especially the areas where date palm fires had broken out but we talked for about an hour before we left.

The event

The interview went only shortly over the fire event itself and soon advanced into details of what the loss of date palms meant to them. Two major fires had affected them directly, for Fa’iz about 9 years before the interview, for Faraḥ 4 years before. In both cases, it was a result from usage of fire for cleaning a field, with sudden gusts of wind taking up and extending the flame, until

several thousand date palms had burnt down. They had tried to intervene but only when all palms had been consumed the fire stopped. Afterwards, government representatives came and, so Fa'iz, ate the meat prepared for their visit and promised to bulldoze the old palms and to provide seedlings to replant. In the end, only the bulldozer came and left a cleared stretch of about 2 km.

The estate

But renewal of the date palm orchards had both a deeper implication and strong complications, as the further discussion showed. Fa'iz highlighted early on the strong symbolic importance of the date palm and quoted, after I stressed my interest in expressions in his own language Nobíín, the singer-songwriter Mekki Ali Idris who compared Nubians to the date palm, as mark of a nobility that reaches far back into the past:

> *Nobíín (Nubian letters)*: ⲛⲁⲥⲅⲓⲁ ⲟ̄ⲩⲛⲓ ⲫⲉⲛⲧⲓⲗⲓⲛⲁ̄
> *Nobíín (Latin letters)*: nasgid ūni fentilinā
> *English translation*: We resemble the date palm in length

From the song 'Wallo Tara' that can be heard performed here (I thank Adham Nasr for the transcription and translation in Arabic, from which the English translation is derived). Mekki Ali Idris also addressed the issue of date palm fires more directly in the song 'Ali Abunaga', and a whole song was devoted to it in August 2017 by the poet Abd Al-Shāfī Abd al-Majīd and singer Al-Shafi' Kīḫah (discussed on Nubokeen, part of recording here).

But the relation to actual data palms underwent significant changes, the most obvious being in property, as explained by both of them in dialogue: date palms grow on land, and the owner of one is not necessarily the owner of the other. If this is the case, then date palms on family land experience the full extent of social relations confirmed and enhanced through shared care for and harvest from the palm. Fa'iz recounted, for instance, his grandfather's date palms as place of memory, of the strong bond (*rabṭ quwwī*) among his heirs who would gather to harvest the dates, to receive their share from their grandfather's palm of the hand, even if only a cupful. Labour migration to Khartoum, to the Gulf countries and elsewhere, steadily

increasing during the second half of the 20th century, made this annual gatherings even more important.

But other date palms existed as well. Since land irrigated from one source, called *sāqiyyah*, can stretch farer than what families can cultivate with their own labour, a system of sharecropping developed, which also extends to date palms: an owner cannot take care of thousands of date palms alone and includes, therefore, sharecroppers (*mushtarikīn*) who can stem from anywhere, including other countries, and who, after planting a palm, acquire ownership and the right to access the land on which the palm grows. The conventional agreement, then, is that the date palm owner gives a third or half of the date harvest as share to the land owner, also for the provision of irrigation. However, since interest in these palms will be, most of all, commercial, there will be no one 'excited' (*muṭḥammas*) about them.

Fa'iz and Faraḥ gave this base structure more historical contour through a review of developmments that were strongly formed land registration under the British colonial government, in this area from 1925 to 1929, following the 1925 Land Settlement and Registration Act. Fa'iz' grandfather, for instance, was lone owner of land registered in his name and from this point on, this same land was inherited by consecutive generations. Before the 1920s, land was flexibly extended and divided with inheritance, and could thus be individually owned by family members and their children. Now each generation meant a multiplication of shareholders.

This fragmentation of land also concerned date palms, although individual date palms were divided among numerous heirs already before registration, as they are – necessarily – indivisible and non-expandable (see short discussion in Leach 1919). Decision-making got equally fragmented, so agreements were no longer possible one-on-one, hundreds of land owners dealt with hundreds of date palm owners. By way of example, Faraḥ's father planted date palms in 1958 and all of his 12 sons and one daughter, and their 4-5 children, each, have a share in them, an increase that is the nature of the world (*al-takāṯur ṭabī'at al-dunya*).

One consequence of this two-sided increase is a general inflexibility concerning land use that is enhanced by another social practice: while land owners in other areas regularly re-register land in the name of specific members of the new generation, this does not take place here, not the least since expansion onto new land is geographically not an option and culturally not a priority. In addition, the practice to go to court after somebody's death for assessment and devolution of the

estate (*ḥaṣr al-tarika*) never took hold and so already Faraḥ's father, who was born in 1896, had no land registered in his own name.

In the meantime, labour arrangements around date palms changed as well. While the techniques remained mostly the same – manual labour using short sickles and climbing the trunk without equipment – the labour force shifted away from the land-owning families. Fa'iz' grandfather and father, for instance, still climbed palms, pruning and harvesting themselves, but he himself and most of his generation did not.

This had to do both with internal and external changes: improved irrigation technology, especially from the wooden waterwheel (*sāqiyyah*) to diesel-fueled engines, made it possible to water larger areas, while labour and educational migration reduced, at least for a few years, the presence of the most productive members of the family on the island itself. At the same time, crises in other regions of Sudan, especially the droughts and wars in the Sahel zone states of Kordofan and Darfur, brought many people from there into the region in search of work, and former resident self-producers became supervisors and employers. Among Fa'iz' and Faraḥ's own children, learning to do agriculture and horticulture was even less of a priority.

In parallel, labour in date palms shifted to these agricultural labourers as well. Renting the houses left behind by emigrating families, a few stay all year with their own families, but most of them only seasonally, a season framed by the rhythm of date palms: pollination in February/March, at the end of the cold season favourable for most crops, and harvest in August/September, at the beginning of the next cold season, a natural rhythm interlocking with economic logic: the pollinator is paid with a free choice of two of the best bunches of dates, making coming back for the new season in his own interest.

The loss

This depiction of the state of affairs is of substantial importance to their subsequent pinpointing of what loss occurred when thousands of date palms burnt down. For Fa'iz, the fire widened a gap that had already been there, a distance between himself and his extended family, especially his paternal uncles, through their common link to the grandfather: he had died but was alive because the date palm renewed [itself] (*kān bajaddid*), drawing the family close every year to find it living on the land. Now both grandfather and date palm had died, irreversibly.

Faraḥ went into an additional direction. The loss of the harvest season as reason to come had already been undermined before by a shift to a different seasonal rhythm, the one having to do with people's work life and educational schedule. Therefore, the character of the visits had also shifted towards tourism – home tourism, so to speak – as people who lived now in Khartoum or other towns came to the island for a change of venue. Up to the 1990s, with fewer schools and universities having close to synchronous vacation periods, this had still meant a strong convergence of families: when vacations came close, in March and September, for instance, the houses would be 'opened' (*yaftaḥū biyūtum*) by the more permanent residents, cleaned, provided with water and food, for the season of visits. But the proliferation of educational and professional institutions, together with more complex structures of labour and other emigration, complicated the rhythm as well, and it was rather the month Ramadan, a lunar month wandering slowly backwards through the solar year, that drew people together. Only a calendric coincidence, such as during the fieldwork period, brings harvest and vacation together, and even more so now after the fires, but also without them, as the areas where no fires have been attest.

In this way, considerations of the loss of date palms corresponded with deeper concerns about reproduction and continuity. Planting new date palms had already become rare, Faraḥ estimated about 1% of the population doing it. One major reason can be the aforementioned land usage situation where, as in the case of Faraḥ, date palm owners could take care of those they could claim as property, but were prevented by land owners to plant again, as they preferred to use their land for other crops. Fa'iz considered planting new ones but was rather afraid there would be nobody taking care of them after he died.

This underlying fear of being part of something waning pervaded this part of the conversation that revealed a specific tension between migration and residence. For Fa'iz, Saï's particular structure of migration stems from an early exposure of its population to the educational system emerging under British colonial rule. Both his grandfathers, born during the 1890s, were university graduates, not an unusual situation among the island's families, and so many engaged in the educational sector that Saï has been called the land of the 1000 teachers, female and male, since the 1970s. This meant that no strong tradition of men emigrating to Saudi Arabia or other Gulf countries came about, as in many other areas of the region, but the high ratio of educational and professional migration also let whole families leave, as it will be connected to longer

employment elsewhere. In this way, the many houses on Saï that have been left empty are a marker of both an exceptional status and a profound problem.

Faraḥ formulated this problem as people's 'detachment' (*ibti'ād*) from their homeland and illustrated this in the following way based on his own situation: when he came in 1986, after a time working in Khartoum and abroad, he decided to stay. People around him started to argue with him how he will secure a good education for his children and he, and others thinking like him, stated that it will be done, whatever the means. He quoted the model of their fathers who had been able to combine being educated and remaining attached to agriculture and horticulture on the island, through cooperatives that made it easy to pool resources, upscale their irrigation technology and gain profits from agriculture that financed their and their children's education. But basic requirements for staying (*muqawwamāt al-istiqrār)* have changed, they include not just good educational and health services, but electricity, also for entertainment, good sanitation in all public institutions, including mosques, amenities that were counted now under essentials. But source of income on the island provided no economic stability anymore and governmental service consisted of creating bodies (*ajsām*) with nothing inside. As a result, all improvements were financed by those with an income elsewhere, gifts coming in from other economic contexts.

In short, their economic status was not in their own hands anymore. Their own seasonal crops were subject to normal price fluctuations but also pests and post-harvest damage, and an insecure crop such as broad beans could make a profit one year, and make one a beggar the other.

It is in exactly this point that the date palms had made a difference: a stable basis of 40-50 sacks of dates every year, a basic income – and the comfort such an income provides. The lack of a governmental response that does more than removing the charred remains of their palms revealed a widening gap in responsibility to provide the basic requirements for staying, and it was in this sense of negligence that Faraḥ felt that there was an aim to damage their homeland (*tadmīr al-balad mustahdafa*), the shadows of the date palm.

Walk 1: Sai, 24 February 2017

Georeference: N 20°45.441’ E 30°19.171’ [geo:20.757350,30.319517]

E – Ego, Y – Yūnis, F1 – Fa’iz, F2 – Faraḥ

1. 16:35:55, N20° 45.441’ E30° 19.171’

This is in some distance from the house, Fa’iz was not present at the beginning and joined later.

E: What is this?

Y: Lentils (*adisiyyah*).

F2: Was before tomato, finished now, could have been used for tomato sauce.

Y: ((dismissive tone))

E: Why are the tomatoes [generally] left on the ground, not cultivated upwards [with sticks]?

This question refers to the general practice in the area of letting tomatoes crawl on the ground.

F2: This here were a different kind of tomatoes, not for cold, but summer. ((Pointing out garlic)). Lentils are currently exported to India, they are not expensive and without any problems. All the beans are infected, just one [field] is good, don’t know what disease, not honeydew (*ʿasl*), [but] from the climate.

There have been increasing problems with diseases and insects, many of them unknown to the farmers. ‘Climate’ refers here both to general climate change and the perceived environmental effects of the Aswan High Dam and the Merowe Dam.

F2: Last year, date palms didn't produce [literally: didn't see (*mā shāfat*)], only 10%, the problem is water and its composition (*takwīn*), the pollution, more chemicals.

'Chemicals' refers both to pesticide usage and to mercury and cyanide used in gold mining on the mainland.

F2: These [i.e. the ruling Islamists] say of course wrath of God (*ġadab min Allah*), the government is saying that, [the Ministry of] Social Affairs (*al-shu'ūn al-'ijtimā'iyyah*). ((rest unclear)) But I am against saying date palm fires come from the government. For three fires in the area, one knows exactly who responsible and there is no relation to the government and they can't be bought.

This refers to one of the circulating interpretations that see arsonists paid by the government behind the fires; this will be discussed further in walk 2. Fa'iz supported this argument later with another case further south where a farmer had cleaned his livestock pen, threw the excrements outside and burned them but lost control of the fire.

E: Has fire been used in the past to clean date palms?

This question refers to a sometimes reported (but never witnessed) practice to intentionally burn the trunk of the date palms to kill insects, especially termites.

F2: ((not answering question)) 90% of the problem is not from fire, but [general] reduction of productivity. It had been already 20% [of expected output in dates], last year even less. Date palms are now already falling down [from old age or disease]. There is a difference in knowledge between the old generation and the new. Before the [Aswan] High Dam, wind directions were known from day to day, and predictable. So between month 6 and 9 [i.e. June and September] nobody makes fire next to date palms, because of the combination of heat and strong winds.

E: Is this after *baramūdah?*

F2: No, ba'ūnah, abīb and misrā.

E: What about winds in *amshīr*?

F2: [They come from] just one direction. These are things unknown for people today.

This refers to Coptic months often used in conversations on agricultural cycles. While the months are practically identified by specific characteristics, there is a conventional translation into the Gregorian calender (names based on Arabic pronunciation): Baramūdah 9 April – 8 May; Bashans [confused by E with previous] 9 May – 7 June; Ba'ūnah 8 June – 7 July, Abīb 8 July – 6 August; Misrā 7 August – 5 September. Amshīr (8 February – 9 March) has warm winds that indicate the end of the cold season. However, knowledge of names of months and their characteristics is waning, as claimed in these statements.

E: ((teasing)) Do you know about this, Yūnis?

F2: No, they don't know, the Galaxy generation (*nās jaliksī*) [all laughing].

'Galaxy generation' refers to Samsung Galaxy phones, icon of smartphones in Sudan, also due to large-scale advertisement boards in Khartoum.

During the conversation, the walk continued to the next point.

2. 16:44:18, N20° 45.672’ E30° 19.116’

F2: The last house of island Sai is the house of Khalil Farah, they came here previously and made an interview with us.

The walk continued to the next point without conversation.

3. 16:47:44, N20° 45.727’ E30° 19.096’

Arrival at burnt area

F2: All of this was date palms, the first fire. [conversation with farmer in Nobíín]

The statement refers to the field in the background, now full of broad bean plants.

The farmer in the photo is wearing a piece of fabric as used in mosquito nets, here to protect face and ears from the green nimitti midge (Cladotanytarsus lewisi) that exists in great numbers during the transition from the cold to the hot season (see videos).

4. 16:48:06, N20° 45.727’ E30° 19.096’

F2: I told you about the culture of the wind (*ṯaqāfa bitā’at al-hawa*), the fire here left all these date palms and went like this. [greetings, introduction of Yūnis to farmer]

‘These’ refers to the undamaged date palms in the background that line the coast of the island, ‘like this’ is the north-northwestern direction.

5. 16:48:30, N20° 45.730’ E30° 19.085’

F2: The [affected] date palms were even dirtier than these. From here the wind took it [in the beginning]. The boatspeople (*nās al-murkab*) know how the wind goes, going down there.

‘Dirty’ denotes a state of the date palm when dry leaves have not been cut off. In addition, this can imply not cutting off new seedlings from the mother palm, which leads to groups rather than individual palms. The lack of human intervention – for productive and aesthetic reasons – is translated into the term wasḫān (dirty) or ʿadam naḍāfah (lack of cleaning).

E: Okay, I will start taking photos from there so the map will be clear.

This part of the walk contained gaps in the co-walking and the conversation, as I walked around the burnt area for GPS recording via photos. This involved going through fields close to the riverbanks, while Yūnis, Faraḥ and later Fa’iz walked and talked on the main path.
The following items are thus rather highlights around waypoints when I met them in between.

6. 16:51:21, N20° 45.788’ E30° 19.060’

F2: These are *sāqiyyah* 1 to 3.

As part of the land registration process (see pre-walk interview), the irrigated pieces of land were numbered, not merely distinguished by the name of owners as before.

E: From here, right?

This part describes another major fire reaching from the northern tip of the island in southwestern direction.

7. 16:54:41, N20° 45.731’ E30° 19.034’

E: Did the fire go along here?

F2: The fire made a long line from the beginning over there. Then wind came and took the fire until the long palm there, then it returned here and went further in the same direction, covered all here but not on the other side, where it was clean. According to the wind.

This indicates the limits of verbal directions, even in combination with sound and photos, vs. video, 3D representations and maps. The mentioned ‘landmark’, the date palm, can be depicted, but the multidirectional dynamic of the wind blowing blazing fires here and there is lost.

8. 16:59:43, N20° 45.652’ E30° 19.019’

E: So the wind passed these by?

F2: Just because they were a little bit far from the fire.

This touches an aspect that will be highlighted more during walk 3, namely the different extent to which date palms were affected and the subsequent difference in ability to regrow. These date palms at the edge of the fire were burnt at the trunk (or even just parts of it) but not inside (see below considerations of the date palm’s heart), so they could regrow leaves and procreate. The photo also indicates the height of palms after several decades of unhindered growth, with Faraḥ seen standing at the left lower corner.

9. 17:01:58, N20° 45.640’ E30° 19.026’

F2: All of this was date palms.

E: But I saw bagging over there.

This seemingly non-sequitur statement (that was not followed up, as well) refers to a practice to protect palm seedlings that were still growing at the mother palm’s trunk with a bag, documented on another image. It implied an active interest in cutting off the seedling once its roots have developed enough, either for sale or for planting. The statement thus referred to ongoing date palm cultivation, in spite of the loss and complications detailed in the pre-walk interview.

This also indicates two limits of this form of documentation, namely the complex, context-heavy implications of single statements and the asynchronous character that is not depicted in a simple listing – perception, reference, photo, discussion occur at different places and at different times, necessitating a ‘rejoining’ through a narrative commentary.

10. 17:09:12, N20° 45.531’ E30° 19.016’

Different instance of practice referred to in previous comment.

11. 17:14:01, N20° 45.482’ E30° 18.996’

F2: The wind was changing directions all the time, burns here, burns there; didn’t enter houses. [walk and longer pause] [*sāqiyyah*] 4 over there, 5 up there next to our house, nothing happened there. [walk and longer pause]

E: So from here the houses are in the middle between the *sawāqī*, for instance 5 and 6.

F2: All date palms of *sāqiyyah* 3 are finished, this here is 4, 2 and 5 are over there, on the other side. The fire still continued for 2 *sāqiyyah*.

The wind appears here not just as driver of the fire but as active agent of burning. These statements show the elements structuring spatial orientation through a combination of land ownership of agricultural land and settlement: the houses are surrounded by agricultural fields and thus, together with the irrigation channels, one of the structuring elements by which one sāqiyyah can be distinguished from the next. The houses, built from fermented clay bricks, withstood the firestorm.

12. 17:19:10, N20° 45.389’ E30° 18.958’

This indicated the position of houses related to former date palm orchard (now bean field) and date palms that survived.

The soundscape, recorded during one of the conversational gaps, indicates the background of the walk, birds, diesel engines pumping water for irrigation – and the clicking of the camera.

13. 17:25:04, N20° 45.304’ E30° 18.943’

E: So here is the end.

F2: Over there.

E: With the channel.

F2: On the day of the fire, the whole government came here with cameras, but didn’t do anything, the fire was still working.

E: How long did the fire go?

F2: From 11:30 until the evening, about this time [late afternoon].

E: For me to get the story right - they heard about the fire and found the time and means to come with cars and ferry here, in frame of 6-7 hours, but did not find a way to bring a pump or anything to stop the fire?

F2: If they would be ready, they could arrive in half an hour, but there is no car [i.e. fire engine], they tell us to use the engine that was just burnt, in the end you go from engine to engine, open them, to extinguish the fire.

F1: Everybody came, Minister of Agriculture, Minister of Education, other ministers, director of zakat, made speeches. I told them only one thing: there are no safety equipment in this country, and there should be, it is not expensive, but you as state should provide it, and this ugly one (*al-qabīh da*) answered it would not even cost 1 million [SDG], the Director of Zakat. […] Up to today there is no car in Dalgo or Abri; they brought now an officer, three stripes, he came and promised he will bring all the equipment and train people, he said so, but still we didn’t see something new.

F2: Until the ferry comes etc. Sai is finished, it is an island, we need boats, doesn't need 10 million.

E: I saw on Artigasha they made a water line just for that [i.e. fire extinguishing], maybe you look it that.

F2: There is nothing anymore after that (*tānī mā fih hājah*), if this would only have been done earlier.

This constituted the most southern extent of the fire that started close to the northern tip of the island. The image also shows the kind of pipes used in irrigation.

The walk ended with a highly critical review of the performance of the government of the Northern State (see further discussion in the following section), and on a note of resignation.

After the walk, Yūnis and I rode on Fa'iz' donkey cart to visit another site (additional aspects on the date palm fires from this ride-along and subsequent conversations are integrated into the following section).

Pre-walk interview 2: Kajbar, 3 March 2017

Georeference: 19°56’52.9” N 30°32’33.2” E (geo:19.948033,30.542550)

I had been in Jeddi with Yāsir, a teacher from one of the islands in Mahas in his mid-thirties, and we crossed over to Kajbar with a small motorboat, called, slightly euphemestic, lānsh. *When we reached the house of Fāris, our contact, our serendipitous way of travelling was one of the first issues, followed by banter on the locally produced lime paint. The talk jumped rather suddenly to the issue at hand with the question ‘What do you know about the fires in Kajbar?’ Different to the other interviews, however, this was followed here by a counterquestion and a debate on the nature of research and what it is and should be about:*

E – Ego, F – Fāris

F: This question of yours [pause], why is it restricted (*muḫtaṣir*) to date palms? I want you to ask about the area with all its problems.

E: Well (*ma khalāṣ*), research doesn’t work like this, one cannot make research about all the topics, it is necessary to have a focus.

F: Don’t you want the situation of the area, or what do you want?

E: Now, at the moment, in this place, in frame of my research, my question is like I asked you.

F: By God, I respect your question, and I respect your research, but our causes are [pause] enormous, this means, these date palm fires are part (*juzuʿī*) of the instruments

(*ʿāliyyāt*) applied against us (*musalaṭa ʿalayna*) so we leave this area, they try to push us out. It is a small part of all the instruments.

In spite of his objection to a question that doesn't seem to grasp the relevant big picture, he shortly accepted my approach reach the larger frame through a specific issue but the mutual challenge remained whether to start with descriptive, specific pieces of evidence, or with the conclusion, the belligerent message he would like to get across:

F: So, if you limit my talking about the date palms, there have been more than 4, 5 large fires that ate more than 20,000 date palms in Kajbar, in these four times.

E: Good, can we speak about them one by one?

F: Of course they were at different times, I don't remember exactly the date.

E: Ah, okay.

F: So, the last fire was some months ago, the one before was a year ago, the one before was 3, 4 years ago, and the first one was probably by now 6 years. These fires, we are certain that they were caused intentionally (*bi-fi'il fā'il*), commissioned (*mukallaf*), against payment (*madfū' al-ʿajr*), they commission people so they burn these date palms. And the reason is clear. We are strongly bound (*mutmāskīn*) to our date palms, our primary wealth (*ṯarwa*). If we lost them, the authorities think we will migrate out of this area. The date palm fires are connected to the emptying (*khilā'*) of the place. And this is of course impossible, it will not happen.

E: Okay, is it known, if we start at this point, is it known what money was paid to whom to start the fire?

F: These are of course things, which are not known, so I cannot tell you this or that person (*fulān*). I accuse, but I can't announce him by name, because I have no clear-cut proof that this person did it. But, the clues indicate (*al-qarāʿin tuʿshīr*), the situations [of the fires] give indications that it was intentional, as they had specific timing. They will always be either at sunset, or the time of prayers when everybody is in the mosque, so they exploit times when the area will be empty.

The dynamic resulting from diametrically opposed starting points betrayed different reasoning underlying our participation in this interview. I attempted to collect partial data that, together with others, would be the basis of my analysis, an analysis generally interested in the changing fate of date palms in their co-existence with humans. For Faris, the only relevant frame would be amassing further proof of the political violence threatening their survival in their ancestral homeland. But the mutual attempts to move towards a point of convergence gave a meandering flow to this exchange:

E: Now the fire next to you [i.e. your house]...

F: Yes, all of it down there is burnt.

E: Okay. This, for instance, which hour did it start?

F: [hesitantly speaking] This started exactly on a Friday, and people were on their way to the prayer. [pause] No, it was Thursday, and it was before the midday prayer, people were preparing for the prayer. And they exploited the weather, there was a strong wind, this was the last fire, a big fire, which took about 12 to 13,000 date palms.

E: This was the last one, so some months ago?

F: No, this was two years ago.

E: Do you remember the month?

F: I don't remember, don't remember.

E: Or the season?

F: The season, you had in front of you (*ʿala wajhak*) the harvest, meaning, the dates came close to be mature (*yasannū*).

E: So about month 7.

F: *ʿadamūhu lēna* (they made it not there for us).

E: You said the number of burned date palms was how many?

F: This one time? Between 12,000 and 13,000 date palms. But all times together was more than 20,000 date palms.

After his interesting distinction between direct evidence and circumstantial evidence, the specifics of the event do not make it easily into the conversation. Reacting to this reluctance of memory, I conceded now the successive move towards a conclusion and shifted the frame to what Fāris had initially demanded. However, I immediately challenged it by questioning the basis of his narrative, the fundamental economic importance of the date palm:

E: Sorry, as a first step I had to had a picture of how the fire went. After this background, we can enter, as you said, the context to the fires in the area here, meaning, the cause of the fire is connected to other things. What are these, according to you?

F: This is the emptying of the area from people, as the date palms are the essential economy of the people. They think if we lose these date palms, we will get out, we migrate. Because they have the dam project here, and we refuse the dam. So they want to empty the area by any means, one of them are the date palm fires.

E: Okay. Now, when I visited other areas, there was the phenomenon of neglecting the date palms, and this was connected to a decrease of harvest, meaning, there is less harvest. Did this not happen here in the area?

F: It happened, the last year, until now. We don't have [enough] dates to eat them [ourselves]. For Ramadan, we don't have them. Our basic income finished. We plant [new palms] from the beginning.

E: Meaning, now before the fire, all work, like pruning (*naḍḍāfah*), pollination, was continuing, like...

F: The pruning, in the past it was there, but during the last years, the last 15 years, there is absence of pruning, it helped in the fast spread of the fire. But it is not the reason for fire. The reason is intention and command (*mutaʿammid*), and what helped in the implementation was lack of pruning, yes.

At this point, a circular principle had established itself. In place of a direct observation, the direct cause of specific fire events remained elusive. While my reasoning bathed in this elusiveness, he captured the cause by a conviction grown over many years, an underlying pattern of political plans towards forced migration that had been founded with the flooding of settlements during the heightening of the Aswan Dam and confirmed with the building of the Merowe Dam and plans for additional dams at Dal and Kajbar. After a section more broadly on economic activities in the area, Fāris therefore returned to the observation that a limited study could not grasp the core of the issue, while I felt it necessary to defend the confines (and expertise) of doing research, albeit not with much eloquence and coherence:

F: This guy, if his study was broad, in all topics, one could give him talk about what is happening here, but he is fixed (*maḥṣūr*) on ...

E: You can say what you want to say (*kalāmak*). Look, research becomes just small-talk, if one is not focussed in it, one cannot discuss the whole world all the time. F: Right, yes, yes.

E: The topic of date palms is an entry point (*madḫal*), therefore I have to cover the basics about the date palm, but via the date palm, especially since in the past the date palm was essential for the societies here, this changed a little bit and even the way this changed says something about migration, changes in the way people live and so on. Like this the date palm opens many doors. So the other issues you mention will appear, but I cannot say they are [all] the [research] topic, meaning they appear via the date palm. So, what did you want to say?

Another, more detailed outlook on the pattern of political struggles he unfolded led, indeed, to another fundamental issue, namely voluntary migration from the area and how it relates to the political programme he perceived to exist:

F: Well, I say, like I mentioned before, that the fire is one of the instruments to empty the area. This means [pause], the foundation of this area's problem is that the government tries to bring people to migrate, so they build a dam here. The people refuse. They used force. There are young people who died, they killed them here, in Kidintakkar. They couldn't get them out by force. They used things to diminish the economy of the area. The date palm fires. The people remained enduring with these things, and protest, with patience, they remained strong. Now they [i.e. the government] came and used the chemical cyanide, the administration of companies for gold extraction, so

people that stay die at home, poisoned. And there is grabbing (*nahb*) of the area's resources, the Nubian area, an area full, full of wealth, precious resources, of clean, tasty (*naqiyyah*) surface water, of gold, of natural gas, according to the experts we heard from, who did studies. So the basic purpose (*ġarad*) of these date palm fires is emptying the area by damaging the economy.

E: But isn't it the case that emigration out of the area has a longer history than, for instance, now what happened with the dams? I mean, the migration abroad, emigration (*iġtirāb*), and so on, started from early on, I don't know here in Kajbar from when, but I mean...

F: Yes. There is a difference between temporary (*mu'aqqata*) migration and permanent migration, if you leave your homeland (*waṭanak*). If they extrude me from here because of the dam, I will not see this area with my eyes again, over (*ḫalāṣ*), I lost the homeland. But the migration, it was there, to Egypt, one goes to work one, two years, comes again, goes to Beirut, now to the Gulf countries, the emigration (*iġtirāb*) is there, not the final migration (*hijra nihā'iyyah*). We don't call it migration (*hijra*). Our folks (*ahalna*) in the Old Halfa, they made them migrate by force (*hajjarūhum qisran*) to Khashim Girba. Until today they suffer (*ya'ānū*). They brought them in a different environment, they brought them means (*mudḫalāt*) of, for the life, I mean, [but] the ways of life were different, and here they lived like us, in the same environment, their economy was the date palm, their environment was clean (*naqiyyah*), and Old Halfa was among the most beautiful towns in Africa. The change started with Halfa. And we see this policy (*siyāsah*) is planned (*marsūmah*) and organized (*munmanhajjah*) internationally, not just from the authorities. Because this area, as I told you, is rich, if they don't get the people out, they will not be able to take this wealth, because all of them steal, they steal, they don't take it legally (*muqannanah*), there is no law. Now these factories are working. There is not one kilo gold that enters the state treasury. All directly from here to Abu Dhabi, smuggling. There are markets in Abu Dhabi, in the name of the areas here, and in the name of persons (*ashḫāṣ*) present here, present in Dubai. So the story of date palm fires is one of the instruments for forced migration of the citizens, emptying (*tafrīġ*), among them dams, fires, poison factories, cyanide and mercury.

Walk 2: Kajbar, 3 March 2017

Georeference: 19°56’52.9” N 30°32’33.2” E (geo:19.948033,30.542550)

E – Enrico Ille

I had left the house of Fāris and descended with Yāsir and Fāris’s brother Abd al-Ṣamad to the agricultural area between the settlement and the Nile. The interview had left me ponderous and I lagged behind the other two, took photos and reflected on what had been said. The following is a reflection on this reflection, triggered by photos and the memories they elicit.

1. 17:32:00, N19° 56.882’ E30° 32.553’

From the first images, an impression crept up on me that there was something regained and something confirmed here. The blossoming *‘ushar* (*Calotropis procera*), for instance, had become for me a symbol of abandoned land, a sign how I had adopted the farmers’ notion of ‘uncultivated’ as ‘uncleaned’, ‘dirty’, a notion that rubbed against the plant’s beauty – or ather beautifully arranged blossoms sitting on jumbled branches – but also against the breach of dichotomies – nature/culture, for instance – that I nurtured. The ‘wild’ tomato, growing opportunistically rather than planted next to it, seemed to correspond. And finally, the dry, uncut leaves hanging over the slight signs of burns at the date palm’s trunk behind both gave the arrangement an almost programmatic, pre-arranged character: a result of humans’ ‘negligence’, fuel to the fires.

2. 17:32:16, N19° 56.881’ E30° 32.551’

There was a profound question at hand here: whatever the specific cause of the fires, what was actually lost? As we had dealt with circumstantial arguments, there was interpretative room on both ends of the chain of causality: if there was a political intention behind it, was it in any way ‘useful’ in the sense of the damage it was purported to cause? I was fixed on the issue of numbers already then: the statistical arguments were all about absolute numbers, with date palms as binary unit – damaged/undamaged. But I found date palms in numerous different states, some slightly burnt, some halfly burnt, some burnt along the whole trunk but regrowing their leaves, some carrying new dates already in the season after the fires.

[see next walk for more details on these variations]

3. 17:33:06, N19° 56.873’ E30° 32.537

But not just that, there was a lively though slightly bent landscape here, fresh green sprouting next to the ribbed rods.

4. 17:33:32, N19° 56.869’ E30° 32.531’

New palms had been planted inside walled-off basins that channeled water in their direction.

5. 17:36:36, N19° 56.844’ E30° 32.516’

Others grew stubbornly out of seeds where they had fallen, unconcerned by human intentions of placement and displacement.

6. 17:38:12, N19° 56.832’ E30° 32.501’

Was this co-presence of the intended and the unintended, the deceased and the growing, the arranged and the opportune, was it the mark of a scarred landscape or a natural state or an instance of both in tension?

7. 17:41:26, N19° 56.806’ E30° 32.465’

What meandered through the grass was, after all, an instrument of continuing diversion of water from the Nile to the fields. But Fāris had pointed out that the dams had interrupted a natural rhythm of seasonal flooding by permanent flooding, turning easiness of watering plants into a constant effort of pumping.

8. 17:42:50, N19° 56.777’ E30° 32.443’

And weren’t the empty spaces between the palms – on plantations a sign of proper spacing – here also a reminder of what wasn’t there anymore?

9. 17:46:02, N19° 56.738’ E30° 32.403’

What kind of socializing had thus remained on this coastal strip – where old trunks were still converted into ashes by fire to heat food and water, to make and drink tea.

10. 17:47:18, N19° 56.713’ E30° 32.377’

Overall, my relativism was soothed: there were so many different responses to what had happened, some turning to rebirth and recreation, …

11. 17:50:50, N19° 56.659’ E30° 32.309’

… others leaving the empty holes of uprooted palms like a battlefield *lieu de mémoire*, a desperate reminder where destruction had struck. In a sense, the phases of a phoenix’ life were inscribed here across different spaces.

12. 17:54:24, N19° 56.624’ E30° 32.238’

So traces of disappearance – especially from other forms of destruction, as termite damage here – also implicitly invite to ask what had sustained that which then appeared to have been lost.

13. 18:01:28, N19° 56.529’ E30° 32.121’

And whose presence sustained – or ceased to do so?

14. 18:14:20, N19° 56.362’ E30° 31.861’

Moving away from the heart of the firestorm, the landscape thickens, drawing life and death, the standing and the fallen, ever closer together.

15. 18:15:46, N19° 56.353’ E30° 31.843’

The fire thinned something out, whether fuelling or causing, contradicting or following an ongoing process. In any case, it laid bare a line, or actually the blurriness of a line, between the coastal strip’s identity as (ultimately man-co-constructed) forest and its agri-/horticultural function. It can easily be felt how this corresponds to other lines, many of which are existential: the protruding line of the desert, the receding line of the river, the offensive line of resource exploitation. A constriction of the fate of both, the forest and the dweller, becomes conceivable.

Walk 3a: Difoinarti, 4 March 2017

Georeference: 19°56’46.8” N 30°30’01.8”E [geo:19.9462,30.4973]

E – Enrico Ille; A - ʿAbd al-Ghannī; Y – Yāsir

On 4 March 2017, Yāsir accompanied me after Kajbar immediately to Dafoi, a settlement that had shifted from the eponymous island to the mainland. We were hosted by ʿAbd al-Ghannī’s family, and he accompanied us in the morning to the island where a large fire had broken out as well. The co-movement had started thus in the house, continued across the river and between the island’s landing site and the site of the fire.

Starting fire (1)

A: Fire started by itself (*qām barāhu*). […] The first level (*marhala*) started here, one palm was ignited (*itwalla'*) here. […] This was the place around the livestock pen (*maḥall zarībah*), from here it extended. […] Look, […] the built *zarībah*, the whole floor was full of excrements.

A: Fire started by itself (*qām barāhu*). […] The first level (*marhala*) started here, one palm was ignited (*itwalla'*) here. […] This was the place around the livestock pen (*maḥall zarībah*), from here it extended. […] Look, […] the built *zarībah*, the whole floor was full of excrements.

E: So, it is still a *zarībah*?

A: Yes, they made it a *zarībah.* This is my father's brother's house.

Starting fire (2)

The second fire started about 7 a.m., during the eid al-adha prayer, probably due to a cigarette. It started on grass on the mainland and was carried by strong winds to the island.

A: Beginning is over there, not much was burned there. But there was there a big fire in dry grass (‘*awīsha*), and it immediately came over, burned about 100, 200 m and stopped.

E: Wasn’t this last year, because here there is nothing that was burned?

A: Well, it went immediately at the tree tops, with the dates.

Y: You see the dry leaves (*al-jarīd*)?

A: Fire spreads there in a strange way (*bi-tarīqa ’ajībah*), flying (*tā’ir*).

Y: Lack of pruning became the main reason for these fires.

Spreading fire

A: This is the wind, it changed. […] It burned here, right? Before this burned, it reached the houses, turned over here, most of the wind went over there. We were standing here, and found it burning over there. The wind kept on changing. We were chopping, and found the fire had gone over there. We went according to the wind (*'ala mu'jib al-hawa*). Well, it came from above. By God, [dry] leaves like this, burning, were flying, going a distance, it was like this. We were afraid, we took the children and women from here.

E: Therefore, if you look at something like this, the fire reached the top, but didn't touch the ground.

A: Or even just reaches the middle [from below], the direction was not clear.

Stopping the fire: cutting trees

A: It reached up to here, we stopped it, chopped these [trees] and stopped it (haṣarnāhā).

Stopping the fire: bringing water

A: Our people (*awlādnā, ḥamlatnā*) were all standing here, in a queue, exstinguishing the fire, with water hoses, the engine didn't work, they brought about 200, 300 containers (*ṣafāyah*), the people standing in a queue (*ṣaff*) here, all the way straight to the place I showed you before, at the fire. I take it, give it to Yāsir and so on, and they pour it out over there. Because the engine didn't work. In this way, the people did it.

Aftermath: landscape of destruction

A: See, these dates [on the ground]. It was a good yield (*balaḥ kān naḍīf*). Probably not less than 1000 sacks that got burned. […] 1000 sacks, and the palms, you see, also not less than 1000 palms. Look, this mother, it has one, two, three, four, five, six, seven seedlings. How many will it be? Thousands!

Aftermath: bodily harm

A: 6 or 7 months ago, after the second fire, there was a relative of mine, about 13 years old, she went here and fell in a hole where trunks of a palm group meet, and she got burnt, for four to five months she had to be treated. She had walked around with us. Only recently she became better, maybe 5-6 months we run behind her treatment.

Other losses: erosion

Y: Is this erosion (*haddām*)?

A: Yes, it's all from erosion, they gave it as compensation (*ta'wīd*). When we were young, we cultivated here, then there was erosion, the island formed (*raqqadat*) and they got it as compensation for this.

Y: Well, many date palms were lost, therefore. A: Many palms fell down, fell into the water.

Other losses: disinterest

E: But here the pollination and the harvest still takes place normally?

A: Yes, yes, the harvest, takes place normally.

E: I just mean, now the people saw with the fires what happens if there is no pruning/cleaning, and so on. Now I don't see that people immediately started cleaning and so on.

A: They don't care (*mā bihtimmū*). They don't, they can't, they don't know these youth of today, cleaning or anything, they don't care.

This was confirmed later that year during a visit of about 450 youths during the previous holiday who could not be excited for the idea to collectively clean the palms, (pre-walk conversation, 18 September 2017).

Past: productivity

A: It's [long pause], ah yes, island Saab, this is Saab, and this is island Saab. This is the place of production, this island. […] There was a *sāqiyyah* here, when we were young, the saqiyya of our grandfather was here. […] This was the *sāqiyyah* here, this was the channel, irrigating all the way up there. Look, how those people were strong, strange strength. The *sāqiyyah* they made here, I remember, when we were young we came here to ride the *sāqiyyah*. It went and irrigated like this. The island was very big, by the way, it became now small, look the island there, all cultivate there now, this seasonal agriculture. All of this extended [more] in the past.

Past: strength

A: I show you the strength of our people. This was exactly [19]62, 55 years ago, I am 61 years old, my age was then five or six years, I remember it, our grandfather, the boy we greeted earlier, of [public] transport, we greeted next to the cows, his grandfather *al-kabīr*, his name was Muḥammad ʿUthmān, was a strong man, he was the owner of this saqiyya, the cattle and saqiyya fell with him, he was riding the *sāqiyyah*, was guiding them, the cattle and all of it was in the water below him, in the big hole, they were making big holes, and it was high. One saw him, he walked westwards, this man fell with his cattle and with the whole *sāqiyyah*, called out, all those people came, the people of Kajbar, the people of Fireig, it took maybe a whole or half day, took all these things out, he was half-dead. Our people came, dug a hole, they didn't know doctors (*ṭabīb walla diktōr*), they dug a tight hole, like the one in a graveyard, three months this guy stayed in this hole. And they lit a fire, a small one (*khafīfa*), I don't know, they brought some specific herbs, put them, and in this way the man was healed, he became maybe more than 61 years old, he died [19]74, and he was a man living normally, 3 months in a tight hole, fitting his size, and in this way they healed him. [names of herbs not clear, see next question] And in this way they healed this man normally.

E: Do you know which herbs they used?

A: By God, I think what they call *talunda* and *harjal*, the dry one, the uncooked, this they put there, and at some places they put fire with *garad* and these things. And oil, the whole body they made with oil, and put him in this hole. You see the strength of these people and how they healed? And they didn't know a doctor. Now our bodies, if

something like this hit us, we cannot bear it. […] Well, those ate *turmus* and these things, and dates they didn't sell. […]

Y: When there was this winter, they said these dates makes one feel warm (*yadaffi' zōl*), after the dinner it is [just] necessary to take one and go to sleep.

Resilience

A: Why will the trees be so clean afterwards? Look, how many leaves it already carries.

E: Because the 'heart' was not burned.

A: The 'heart' didn't burn, right.

Y: You see, it is strange, when I came after a few months, the date palms had brought out new leaves.

A: They are strangely resistant (*qawwi ʿajīb*).

Walk 3b: Difoinarti, 19 September 2017

Georeference: 19°56’46.8”N 30°30’01.8”E [geo:19.9462,30.4973]

Enrico Ille, Yāsir, ʿAbd al-Ghannī

We left the house in the morning – we had stayed over night, again – Yāsir and I on foot, ʿAbd al-Ghannī on his donkey. We arrived at the river, which first carried ʿAbd al-Ghannī’s voice, as he called for the ‘water taxi’, and then us to the other side.

1. Post-fire landscape

The post-fire landscape took only a short while to look at, as the response had been swift and only about a dozen palms had been reached by the fire. The fire had broken out in April after an elderly local farmer had cleaned the riverside with fire. He had extinguished it before going to prayer, but the residual heat and embers were enough, it seems, for a strong wind to reignite the fire. This time, date palm owners wanted to open a case against the farmer but other residents dissuaded them from it, and there was rather a communal agreement to prohibit the use of fire for cleaning once and for all.

2. Settlement history

The larger part of the walking interview was taken up by aspects of settlement history that revealed a deeper notion of loss. This part of the island, called *sāb* (the 'tail' of the island, as it is opposite kuny, the 'face' that faces the Nile in its flow), had been, according to 'Abd al-Ghannī, the residence of a royal family under Shamintod that had arrived from Mosul, where Shamintod's brother ruled. Shamintod, who he considered his great-great-great-grandfather, had come with slaves who had built the largest buildings on the island, which he called 'castle' (*qal'a*). A short exchange between 'Abd al-Ghannī and a man at the landing site hinted at the existence of royal newcomers and pre-settlers jokingly by calling each other 'land thief' and 'grass-hut dwellers'.

3. (Un)settlement

But ’Abd al-Ghannī’s father belonged to the last generation to still live on the island until his death, in 1971, ’Abd al-Ghannī himself resided on the mainland. His siblings had remained on the island until the 1990s; they had endured the 1988 flood, but the ‘big flood’ of 1998 [1996?] had entered far into the island and people became afraid of buildings collapsing and left. Now it had become an agricultural land and the buildings were merely a reminder of (un)settlement history.

4. Paradise lost

This evacuated landscape of wealth was also manifested in a place of memory that once had been filled with thousands of sacks of dates during harvest time. Letting the eye wander challenged to hear and see this implicit commotion, letting on the notion of a paradise lost.

5. Childhood memories

But the empty reminders of this settlement history were still filled with ’Abd al-Ghannī’s childhood memories, going back about 60 years: the houses had been full of life; the milling stones with ball-shaped pounders resounded with the work of the grandmother-generation that had faded by the 1980s...

6. Hooks in the wall

… and hooks in the wall hung on to those who once hang their things there.

7. Architecture of defence

The two storeys had divided the household in protectors, manning the arrowslits, and protected, in the ground-floor below, ...

8. Architecture of hospitality

… and still contrasted an architecture of defence with the architecture of hospitality on the mainland, represented by the *masīd*.

9. Places of memory

But the island's places of memory also referred further back, mediated by practices some of which waned, some of which lingered on. On an open space, 'Abd al-Ghannī reminiscenced:

> You see, when we were young, this was the place of slaughtering, people came from east, from west, they had like, a custom, you see, […] they did invocations (*da'wāt*) and prayers, they came here to slaughter, and there are fishes, their colour is somehow beautiful (*samḥah*), it has, like, red, people said these are angels, and they brought clay from over there, and they made cross signs.
>
> They said what [this means], they said when Abdallah ibn Abi Sarh came, when he entered [i.e. introduced] Islam, this was his washing (*al-wudū'*) place, and people came to do their prayers and slaughtered here. I was a small child and still remember, one old woman, she was in charge (*mutwallī*) of this. So this island has a very big history, they said it was the first base (*ma'qal*) for our Abdallah ibn Abi Sarh. Christianity is also said to have started from here, this island. […] Do you see the part that has been burned there? Mohammed Jalal Hashim was there, I was with him.

The perceived confluence of history on this space is immense, from the transition from pre-Christianity to Christianity, from Christianity to Islam, and to the present crises of persistence, represented by Mohammed Jalal Hashim, one of its most vocal defenders.

Back at the landing site we saw a boat leaving with women who had collected tugin fenti, dates that had fallen on the ground and that charitable owners allowed to be collected, mostly, but not exclusively, by women with low income. Their situation had actually been strongly disturbed by the fires as well, but this was an aspect that appeared only in other contexts.