



I'm not robot



Continue

## The long dark maps

Has there ever been a more complicated TV show than Netflix's Dark? Sure, there have been other shows involving time travel, but nothing comes close to the complex network of relationships and timing that is this German-language sci-fi series. You may need a dark character map after watching the series; even if you're already dismaying us for the second or third time, it can still be hard to keep track of who's related to whom and in what timeline you've seen them before and whose daughter is actually their mother, and so on. The series revolves mainly around four families living in the town of Winden, Germany: the Kahnwalds, nielsen, Dopplers, and Tiedemanns. Thanks to a wormhole in the caves beneath the nuclear power plant that can transport you over time in 33-year-old increments, it turns out that these four families are even more closely related than they knew. In fact, practically the entire city is a Gordian knot of bootstrap paradoxes and secret incest. (And you thought the Lannisters were messed up.) NOTE: In this map, each direct descendant will be written in ALL CAPS. The person with whom they had a child will be written (in parentheses). Brothers are | | straight lines. Aliases will be denoted with a slash/between names. (WARNING: This post contains SPOILERS for all three seasons of Dark.) THE ORIGIN (Agnes Nielsen) Son of two worlds, The Origin (real name unknown) is the son of Jonas Kahnwald of the World Prime and Martha Nielsen of the Mirror world. He followed Tronte Nielsen with Agnes Nielsen to both worlds, becoming the center of the complicated knot that is the Winden family tree. The Origin and Agnes Nielsen had a son, Tronte Nielsen. After growing up away from his hometown, Tronte returned to Winden with Agnes when he was a teenager. They rented a room from Egon and Doris Tiedemann, and Tronte approached his daughter Claudia Tiedemann, while Agnes pursued a relationship with Doris. Despite her close childhood relationship with Claudia, Tronte ended up marrying Claudia's classmate, Jana.MADS NIELSEN | ULRICH NIELSEN (Katharina Albers)Tronte and Jana Nielsen had two children: Mads and Ulrich. Mads disappeared in 1986 and was killed during Noah's attempts to build a time machine, with his body appearing in 2019. Ulrich grew up and married his high school sweetheart, Katharina Albers. Ulrich becomes trapped in the past after turning back to try to kill Helge Doppler before Helge can help Noah kill Mads. After going back to try to save Ulrich, Katharina was killed by her abusive mother, Helene Albers.MAGNUS NIELSEN | MARTHA NIELSEN | MIKKEL NIELSEN/Michael Kahnwald (Hannah Krüger)Ulrich and Katharina They had three children: Magnus, Martha and Mikkel. Mikkel disappeared in 2019, traveling through time until 1986, where he was adopted by nurse Ines Kahnwald, daughter daughter former Winden Police Chief Daniel Kahnwald (boss of Egon Tiedemann). His name was changed to Michael Kahnwald, and as an adult he married Hannah Krüger. Martha was killed by Adam (old Jonas) shortly before the apocalypse. Magnus was rescued by The Stranger (Adult Jonas) and transported in 1888, where he became a member of Sic Mundus.JONAS KAHNWALD (Martha Nielsen\*)Michael and Hannah Kahnwald had a son, Jonas. Since Michael is actually Mikkel Nielsen, Jonas Martha Nielsen's crush is actually his aunt. Thanks to the manipulations of Eva (old Martha\* of the Mirror world), there are two versions of Jonas: one who was brought into the Mirror world, where he had The Origin (thus becoming his great-great-grandfather) and was later killed; and one who has never traveled in the Mirror world. And he grew up to become The Stranger and then Adam.EGON TIEDEMANN (Doris) (Hannah Krüger)Another strand of the knot begins with Winden police officer Egon Tiedemann, who had two children with two different women: his wife, Doris, and Hannah Krüger, who traveled back in time from 2020 to 1954 and pursued a relationship with the married man. (Doris also continued her relationship with Tiedemanns tenant Agnes Nielsen.) CLAUDIA TIEDEMANN (Bernd Doppler) | SILJA TIEDEMANN (Bartosz Tiedemann)Egon and Doris Tiedemann had a son: Claudia. As a girl, Claudia had a crush on Tronte Nielsen, the son of her family's tenant, Agnes Nielsen. However, Tronte married Jana and Claudia never married. Egon and Hannah Krüger had a son as a product of their relationship: Silja. After leaving Egon, Hannah took her daughter and traveled back in time until 1888. There, Jonas Kahnwald killed his mother and transported Silja into the post-apocalyptic future. REGINA TIEDEMANN (Boris Niewald/Aleksander Köhler)Although Claudia Tiedemann never married, she had a son: Regina. Many people on both the show and watching the show assumed that Tronte Nielsen was her father, but it was eventually revealed that Regina's father was Bernd Doppler, Claudia's predecessor as power plant manager. As a child, Regina met Aleksander Köhler (real name Boris Niewald) shortly after her arrival in Winden. Aleksander would then take control of the power plant from Regina's mother. BARTOSZ TIEDEMANN (Silja Tiedemann)Regina and Aleksander Tiedemann had one son: Bartosz. Bartosz was the best friend of Jonas Kahnwald and Martha Nielsen's boyfriend. Bartosz was rescued from the apocalypse by The Stranger and transported in 1888, where he became a member of Sic Mundus. While in 1888, she met and fell in love with Silja Tiedemann (her grandmother's half-sister), who was sent back in time by Adam.AGNES NIELSEN (The Origin) | HAVE TAUBER/Noah (Elisabeth Doppler)Bartosz and Silja They had two children: Agnes Nielsen and Hanno Tauber. Along with The Origin, Agnes would have child: Tronte Nielsen. Agnes's brother Annone, named Noah after Adam, killed his father, Bartosz, for losing faith in Sic Mundus. He was then sent to 2020, where he survived the apocalypse in the bunker along with his grandmother Regina Tiedemann, great-grandmother Claudia Tiedemann and Peter and Elisabeth Doppler. After the apocalypse, Annone and Elisabetta fall in love. CHARLOTTE DOPPLER (Peter Doppler)They have Tauber and Elisabeth Doppler had a son: Charlotte. An older version of Elisabeth traveled through time and kidnapped her daughter. (Even an older Charlotte traveled with her and helped kidnap.) Elisabeth and Charlotte took little Charlotte to the past, where they handed her over to H.G. Tannhaus, author of A Journey Through Time and inventor of the time machine. Charlotte grew up with Tannhaus as an adoptive guardian, and eventually married Peter Doppler, son of Helge Doppler and an unknown woman, and grandson of Bernd Doppler, the original power plant manager, and his wife Greta (although Greta confessed to his priest, Noah, that Bernd was not Helge's real father). FRANZISKA DOPPLER | ELISABETH DOPPLER (Hanno Tauber / Noah)Charlotte and Peter Doppler had two children: Franziska and Elisabeth. Franziska was rescued from the apocalypse by the Stranger and transported in 1888, where she became a member of Sic Mundus. Elisabeth survived the apocalypse in time, never became Michael Kahnwald, and never married Hannah Krüger... so Jonas Kahnwald doesn't exist. Rather than marry Michael, Hannah married Mikkel's father, Ulrich Nielsen, who left Katharina Albers for her, but is now in a relationship with her colleague Charlotte Doppler. If you are looking to work in games, it is worth playing with normal mapping. Now one of the hottest topics in the industry, normal maps make the surface of a game model much more detailed and impressive. This detail is displayed in real time: the images in the article are screengrabs, not renders. To create a normal map, a 3D software package samples the directions in which the surfaces of a detailed model (a high-resolution version of the game object) face, storing the information as colored pixels. The map is then applied to the lower resolution object, passing information about the high-resolution model to the lighting calculations. In this article, we will provide a brief overview of the problems that normal mapping generates. At present, a common is to immediately build the high res source model but i think it may be more effective to start with the lo-res lo-res Model. First, getting started at the bottom makes it easier to review proportions and allows vital early rigging and animation tests. Secondly, once the lo-res is finished, it is a simple job to add enamel. With subjects like the pirate on the right, I recommend exporting the mesh to ZBrush 2: a great tool for sculpting in organic detail. With both models finished, you can capture the map. The pirate uses the Render to Texture tools of 3ds max 7, but an alternative would be ATI's free NormalMapper plug-in for Maya and earlier versions of max (www.atl.com/developer/tools.html). In any case, a good result depends on a narrow fit between the volumes of the two models. The final step is to control the map in the 3D package, using a suitable hardware shader. It will probably need to be changed in some areas, but you should immediately see a big increase in the detailed appearance of the game model. Click here to download the independent and reliable online education guide for over 22 years for free! Copyright ©2020 GetEducated.com; Colleges Approved, LLC All rights reserved While everyone loves to beat up on Apple Maps - and not without justification - none of the existing map apps are still good enough. Whether it's data quality or user experience, everyone gets it too often to be acceptable, and that has to change. Apple, for all its data aggregation, cleaning and sanitization issues, gets a couple of things right. The interface, both pre- and post-iOS 7 is not only nice, but provides a good amount of information not only about your next turn, but the next round. Voice directions also do a good job of keeping you informed on long stretches of road and advise you to stay left or lead right so you're in the right place for a shift sooner rather than too late. Unfortunately, while Apple Maps can often take you to the block you're going, it tends to break when it comes to the exact place and entry to it. Google Maps nails data, but almost for a fault. It's less human. It will tell you that you have to turn right without warning you to go right, or tell yourself to go left when there are three options on the left and get to processing only well after the correct one has passed. (And not to think their data is perfect, today they told me to do a U-turn on a non-exit road when I was actually in the middle of a 4-lane highway. He only appeared after overcoming the virtual dead end. On my way to Mountain View. Yes.) Nokia Here map, TomTom and all those who licensed data from them all need to do a better job not only with such data, but with the presentation in a more Well verified and constantly presented location that not only tells you where to turn and how to get where, but makes sure you're in the right place to shoot and helps you get there. Like too many things, if I could somehow crush Apple and Google Maps together again, I'd love to something that comes close to what I want - great data and great interface - but this is an option that no longer exists. For now it's a race to see who can become more like each other, better, faster. Maps are difficult, no doubt. But getting lost sucks. What is a reasonable level of accuracy? What is a reasonable level of experience? If you lose a shift or they send you the wrong way, how often is it too often? Often?