Diploma Programme
Programme du diplôme
Programa del Diploma

Antropología Social y Cultural
Nivel Medio
Prueba 1

Miércoles 12 de mayo de 2021 (tarde)

1 hora

Instrucciones para los alumnos

- No abra esta prueba hasta que se lo autoricen.
- Lea el pasaje y conteste las preguntas 1 **y** 2. Conteste la pregunta 3 **o** 4.
- La puntuación máxima para esta prueba de examen es **[20 puntos].**

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8 páginas

Lea el pasaje.

Pasaje adaptado de James Smith: What's in Your Cell Phone? (¿Qué hay en tu celular?) En Dorothy Hodgson y Judith Byfield, eds. Global Africa Into the Twenty-First Century. Berkeley, CA: University of California Press, 2017. [Traducido del original en inglés]

La narrativa moderna acerca de cómo la tecnología nos ha librado de la materialidad ineficaz del pasado (cosas como el papel, la piedra, la madera y el cemento) oculta una verdad. Al concentrarnos en cómo se fabrican los teléfonos celulares, podemos ver cómo se produce nuestro mundo tecnológico. El trabajo invisible de los mineros africanos hace que este mundo sea posible.

Para entender la relación de África con la economía capitalista mundial, el mineral llamado coltán* es el punto de partida. Seguir su trayectoria desde el suelo hasta los chip de computadora cambia la manera en que vemos la relación entre África y el mundo. Con la globalización, las empresas y los ejércitos informales que controlan la minería de coltán imponen su poder sobre la autoridad del estado. Esta etnografía examina la importancia del coltán para quienes trabajan en el extremo inferior de esta cadena global de mercancías. A través de las narrativas orales y otros datos etnográficos, me concentro en la vida de los mineros.

Hay millones de personas en la República Democrática del Congo que dependen de la minería. El trabajo lo suelen realizar los hombres jóvenes, que se hicieron mineros durante las guerras, cuando perdieron sus tierras agrícolas que en hoy en día se explotan para extraer coltán. Los mineros trabajan en grupos pequeños, utilizando herramientas de mano, tales como piquetas y palas. Sus condiciones laborales son muy inestables en esta economía informal. Pese a su reputación como actividad criminal y peligrosa, el trabajo está sumamente organizado. Al ser una antigua colonia Belga, los títulos de los puestos de trabajo reflejan los de la minería industrial bajo control Belga de antaño. Por ejemplo, *chef de colline* (jefe de colina) representa al dueño de la mina, y el *chef de camp* (jefe del campamento) está a cargo de las relaciones sociales y la paz en el campamento. Esto genera tanto una división del trabajo como un sentido de continuidad histórica.

¿Cómo entienden estos mineros su trabajo y su aporte a la economía capitalista global?

Uno de mis informantes, "La Máquina", fuma mucho. Dice que fumar no le hace mal porque las advertencias en los paquetes de cigarrillos están dirigidas a personas como yo, no a los mineros. Explica que el humo de cigarrillo llena el hueco donde trabaja [la mina] y hace que se sienta como en su casa, casi como en una cocina, de modo que se olvida de sus preocupaciones y se siente cómodo en la oscuridad.

Comenta que todos los mineros fuman, porque siempre se encuentran en la oscuridad. Los mineros suelen decir que están "en la oscuridad", o "en un agujero", sin poder "ver hacia delante", porque carecen de conocimientos sobre las fuerzas que los afectan, como el precio del coltán o sus usos. También deben desarrollar estrategias de adaptación para responder a sus condiciones de trabajo peligrosas e inestables, moviéndose y cambiando de táctica de un momento a otro. Añade: "Somos como serpientes bajo tierra, siempre buscando un hoyo donde meternos."

Mi amigo no es la primera "máquina" que conocí durante este trabajo de campo: es un sobrenombre común, que sugiere la capacidad de una persona para trabajar sin cesar. El término "máquina" también representa la naturaleza sumamente organizada y productiva de la minería en sí: la compleja división del trabajo. Cuando dicen "¡Somos mejores que una

máquina!" es una forma de afirmar el valor de ellos mismos y de su trabajo.

"La Máquina" se hizo minero para mantener a su familia, ya que perdió todo durante la guerra, y nunca pudo volver a casa. No tenía idea de que, a fines del año 2000, Sony se quedó sin el coltán que necesitaba para satisfacer la demanda de Sony Playstation 2 para Navidad. Esta escasez promovió un aumento de precio, intensificando la situación de guerra, en la que estaban involucradas corporaciones internacionales y nueve países africanos. Ochenta y cinco empresas de veinte países colaboraron con los ejércitos gubernamentales e informales. Estos ejércitos forzaron a la población civil a trabajar en las minas.

Muchos mineros en el bar donde bebemos cerveza usan un sobrenombre: en nuestra mesa tenemos un Chuck Norris, un Rambo, un Snoop Dogg y un P. Diddy. Estos nombres simbolizan su conexión con el mundo global. Toman estas identidades de un mundo que están ayudando a producir y del cual desean formar parte.

La llamada era digital que nos promete Silicon Valley depende del trabajo de los mineros y de las formas sociales que se les imponen. Son desposeídos, sujetos a varias formas de violencia, que aceptan con gusto su "ciudadanía global".

[Fuente: "What's in Your Cell Phone?" por James H Smith. De: *Global Africa: Into the Twenty-First Century*, editado por Dorothy L Hodgson y Judith A Byfield © 2017 por The Regents of the University of California. Publicado por la University of California Press. (Páginas 289–297).]

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* coltan (columbita-tantalita): un mineral utilizado en todos los aparatos electrónicos, incluidos los teléfonos celulares y los laptops. La RD del Congo tienen el 80 % del coltán del mundo. El coltán congolés es un mineral esencial para los aparatos digitales y el capitalismo de la era digital.

Conteste la pregunta 1 **y** la pregunta 2.

1. Defina el término **estructura** y describa cómo puede entenderse y aplicarse en el contexto del pasaje. [4]

2. Analice los datos etnográficos presentados en el pasaje utilizando el concepto de **materialidad**. [6]

Conteste la pregunta 3 **o** la pregunta 4.

3. Compare y contraste la manera en que el concepto clave de **simbolismo** o **poder** es evidente en este pasaje con la manera en que es evidente en **un** ejemplo etnográfico que haya estudiado. [10]

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4. Compare y contraste los enfoques de investigación adoptados por el antropólogo en este pasaje con los enfoques de investigación utilizados por **un** antropólogo que haya estudiado. Haga referencia a conceptos y material etnográfico en su respuesta. [10]

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A continuación se muestra el artículo completo de James Smith: “What’s in Your Cell Phone?”.

What’s in Your Cell Phone?

James H. Smith

Abstract: Congolese coltan is a mineral critical to digital devices and the digital age. Coltan provides insights into Africa’s relationship to the world economy, global governance, and “modernity” (or postmodernity) broadly conceived. Tracing the movement of coltan from the soil and forests of Africa to various markets around the world, and finally into computer chips, changes the way we see Africa and the world.

Keywords: coltan, Congolese wars, digital age, regulation, artisanal mining

ANYONE WHO’S EVER WATCHED A TED talk, any of the four different movies about Steve Jobs, or the popular television show *Silicon Valley* is well versed in the alluring American narrative regarding how techno-savvy individuals have changed the world by mobilizing their indomitable wills against outmoded cultural and political traditions. Linked to this romance is the notion that we can “save everything” by “clicking here” on our devices, as Evgeny Morozov reminds us in his similarly named book (*To Save Everything, Click Here*). But this mythology about how virtuoso minds invent technologies that liberate the world from the past’s cumbersome materiality—things like paper, stone, timber, and concrete—conceals an even more compelling and revealing set of truths. By focusing on how these devices are made, we can see how far-flung places connect to one another, what the “digital age” amounts to, and how the technological worlds we inhabit are produced. One crucial though perhaps less visible example is that of the Congolese artisanal miners who actually get down in the mud and, through extremely laborious and highly organized work, unearth the materials that make this seemingly futuristic world possible in the first place. If you want to understand Africa’s relationship to the world economy, global governance, and “modernity” (or postmodernity) broadly conceived, the dark metallic mineral called coltan would be an excellent place to start. When we unpack this mineral, and its movement from the soil and forests of Africa to various markets around the world, and finally into computer chips, it changes the way we see Africa and the world.

Coltan ore is important to engineers because tantalum and niobium can be extracted from it; tantalum’s density makes it highly sought aft er for its capacity to hold a high electrical charge. Coltan is found in all electronics devices, including mobile phones and laptops, though not all of it is from the Democratic Republic of the Congo (DR Congo). While at one point the Australian company Sons of Gwalia was thought to control half of the world’s coltan production (it closed in 2004 and suffered from ongoing strikes before that), these days most coltan is mined artisanally in diverse parts of the world, especially in Africa and, increasingly, South America. According to the US Geological Survey, the DR Congo has 80 percent of the world’s coltan. The dark, metallic silicate is similar in appearance to, and often found alongside, other minerals that are equally crucial for digital technologies—especially wolframite, the ore from which tungsten is derived; and cassiterite, from which tin is derived. Tungsten is used to make computer screens and also enables cell phones to vibrate; tin is used in wiring, among many other processes. International NGOs working in Congo refer to coltan, tin, and tungsten as the “three T’s,” a phrase that has become prominent in the policy literature, gradually replacing the earlier emphasis on the single mineral “coltan.” Congolese involved in the trade refer to these minerals as “black minerals” (*mineraux noirs*). Miners tend not to specialize in one mineral or the other, but to move between these and other minerals depending on price, security, and accessibility.

Congolese coltan and the other “digital minerals” are found in forests and in hillsides on what would otherwise be agricultural land. To say that these minerals are mined “artisanally” means that they are dug by small groups of diggers using mainly hand tools, like picks and shovels. Sometimes these diggers have to dig into shaft s and end up underground in what can be perilous circumstances. There are about two million artisanal miners in the DR Congo and ten million people dependent on mining. Many of these people became miners during the First and Second Congolese Wars, when they lost their access to agricultural land, their livestock, or other property. This kind of mining is typically done by relatively young men, though women sift and clean the ore that is dug, leaving it to dry in the sun. They also sell things to the miners. There are many other kinds of workers involved in this trade, including the porters who are hired to carry the minerals on their head out of the forest.

Each mine is different—miners often say that each mine is its own "universe"—with divergent political and social systems, and principles of taxation and land ownership. That said, at any given mine there are also a number of people on-site whose job it is to make sure that the work is organized and that it begins at a certain hour (say, 8 a.m.) and ends at another (say, 6 p.m.)—unless the mine is under militia control and/or the price is running high, for then diggers will work in shift s day and night. Artisanal miners have borrowed job titles from the days of Belgian-controlled factory mining to create a division of labor and a sense of historical continuity: at any mine one is likely to find a *chef de colline* ("chief of the hill") serving as the mine manager or representing the mine owner. A *chef de group* collects fees and tax from groups of workers, and organizes the distribution of food and other things, while a *chef de camp* may be in charge of social relations and civic peace in the camp. The *chef de chantier* is likely to be the foreman in charge of making sure a group of workers have whatever it is they need. According to the Congolese mining code, each mine also has a diggers' cooperative made up of middlemen and diggers, whose job it is to ensure that workers have the food and materials they need and that there is order in the mine. This cooperative also keeps track of workers and their debts and may impose other rules (regarding sex or alcohol consumption, for example). Despite artisanal mining's reputation for being criminal or dangerous, it is also highly organized. Diggers are usually proud of the sophistication and efficiency of the social and cultural forms that they generate artisanally.

So how do the people who dig these minerals understand the work they do, and their contribution to a global economy that is at once increasingly interconnected and radically disconnected?

CONVERSING WITH "THE MACHINE"

"The Machine" smokes a lot, that's for sure. He assures me that the smoke from the cigarette doesn't have time to linger in his body and cause harm, and warns me that I shouldn't follow his example because the warnings on cigarette boxes were made for the likes of me, not the likes of him. He dramatically enacts breathing and digging for me, blowing in and out with great force while moving his arms, as if to prove his point. "The Machine" explains that the smoke from the cigarette fills the hole in which he works and makes it feel like home, almost like a kitchen, so he forgets his worries and is comfortable in the darkness. All diggers smoke, he says, because they're always in the dark. This idea is one that comes up often among miners, in different ways and contexts: diggers are often said to be "in the dark" or "in a hole," unable to "see ahead," because they lack knowledge about forces that affect them, such as the prices for the substances they dig up from the ground, or what the stuff is for in the first place. They are often said to be unwilling to plan or save for the future, but the truth is they must be ready to move and change tactics at a moment's notice.

My new friend isn't the first "Machine" I've met while studying the artisanal mining trade of the eastern DR Congo; it's a fairly common name, suggesting the capacity of the person to work vigorously without stopping. Sometimes the term "machine" is also used to talk about the highly organized and productive nature of artisanal mining itself—the complex division of labor among miners, and the multiple committees and subcommittees that work to mitigate conflict—as in the oft -repeated phrase "We are better than a machine!" It's just one of the ways in which people assert the value of themselves, their social networks, and their work—with an implicit comparison to some of the things they help to produce. Miners also desire the phones and other technologies they help to make because, through these devices, they can acquire some measure of control over their situation, and some predictability in their work lives. They will use these phones to call their friends in the city to find out the price that coltan or other minerals are fetching at any given time, for example.

The Machine drinks a strong stout beer called Tembo, or "elephant." Many of the other miners at this bar use a sobriquet as well, usually one that speaks to and also helps to make a global social imaginary. At our table at the bar alone we have a Chuck Norris, a Rambo, a Snoop Dogg, and a P-Diddy. "Have you ever met an Obama?" I ask the Machine with a laugh. "Obama?!" The Machine points to a small house. "He's right over there! He works real hard but he smokes too much pot!" On the one hand, these names symbolize the fact that miners' work connects them to a social fi eld that is global in scale: they help to produce this interconnected world, and they draw their identities from this interconnection. On the other hand, such names are also designed to help these workers avoid creditors. There is simply no such thing as an artisanal miner who doesn't have a debt to someone, since this work cannot take place without a regular flow of money from middlemen to diggers. But an array of unpredictable and uncontrollable factors

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can make it so that these debts don't get repaid in a timely fashion. And so diggers like the Machine have to come up with adaptive strategies for dealing with people who could bring them harm. "We are like snakes in the ground, always looking for a hole to crawl into," he says, expanding upon his original theme about being in a hole.

The Machine didn't start out as a digger. Like many, he got into this work during the Second Congolese War (officially, 1998–2003), when all of his things were taken by the Rwandan-backed Rally for Congolese Democracy. Before that, the Machine sold miscellaneous wares. Aft er those were gone, he heard about the price that coltan ore was fetching and so went into the forest to make a living for his family. But he has never been able to return home. The Machine had no idea that, in late 2000, Sony had run out of the tantalum it needed to meet the Christmas demand for Sony Playstation 2. This shortage fueled already existing on-line speculation that led to a dramatic price bubble: coltan prices rapidly rose tenfold, only to drop down to close to its original price in 2001. Among miners and traders, the price hike for coltan is still remembered as a miraculous and dangerous time; in some places it is known simply as the *fois deux* (the doubling), and in others it is recalled as the time of *bisikatike*, or "may it never end." Today, the Machine calls coltan the "mother of all minerals" because of its incredible density; it draws in multitudes of workers and vast divisions of labor—all of whom get to "touch money," as Congolese put it. Because it puts so many people to work and feeds so many other businesses, coltan and the other "black minerals" are more likely to generate real, enduring peace than gold or diamonds, which can be easily smuggled to foreign countries and individually possessed.

This price hike for coltan happened during the middle of the Second Congolese War, which is often described as Africa's "First World War" because it involved at least nine African countries, as well as international corporations. This horrible war, in which more than six million people died, had complex causes, including the overflow from the Rwandan genocide and the long history of kleptocratic governance under Mobutu. The value of minerals in the Congo incentivized neighboring countries and international corporate players to get involved, and minerals were used to purchase arms, which allowed some groups to continue to make a living through armed violence. These neighboring African countries were responding to a budgetary crisis brought about by the structural-adjustment programs of the 1980s and 1990s, which bankrupted African treasuries. During the war, occupying armies, especially the Rwandan-backed Rally for Congolese Democracy, bought Congolese minerals and mined for them, often forcing civilian populations to dig coltan at the "barrel of a gun"—to echo one NGO report. According to a 2002 UN report, eighty-five firms from twenty countries—including Anglo American, Barclays, Bayer, Cabot, HC Stark, and Standard Chartered Bank—collaborated with occupying armies or illegal militias during the war. The UN recommended economic sanctions on twenty-nine firms from Britain, the United States, Germany, Malaysia, Hong Kong, and Belgium, but they were never implemented. The demand for minerals by foreign armies also helped fuel the dollarization of the Congolese economy, and had many dramatic ramifications that continue to affect people to this day.

For a while, the Machine was able to make enough money from his own sweat to become a middleman himself. But when the price fell from one hundred dollars a kilo to ten dollars a kilo, it left thousands of people in the forest holding worthless sand. The resulting indebtedness on the part of those, like the Machine, who financed their enterprise using different sorts of "loans" (often interest-bearing ones) affected the entire region. It impacted everyone, from urban entrepreneurs to low-level diggers, many of whom continued to stay in the mining business to pay their debts or escape debts while living in the forest far from home. Several people have told me that this was the moment when eastern Congolese became "addicted" to mining, because their debts made it so they had to look for other minerals in the forest in order to return home. The Machine also had debts that he needed to pay off to various financial backers, so he couldn't return to the city of Goma, his original home. Instead he hung around in the forest, digging to make ends meet, while waiting for something to happen. When the Machine heard that Bakumu trappers had discovered cassiterite and bauxite in the middle of the rainforest at a place that came to be called Bisie (Bakumu for "it will never end"), he went there to work, along with what soon turned out to be nearly twenty thousand others. During that time (roughly 2003–10), the Machine says, he ate and drank like a king. But these days, a foreign company has taken advantage of the work of these artisanal miners and secured a contract from the government to drill. The Machine and his friends have been evacuated by the government from the site they discovered and developed. A small fraction of them now work for the foreign company, building a road for a pittance.

His physique no longer allows the Machine to live up to that name. Before, when the Machine's boot touched the ground, it left behind a major imprint, but now he treads lightly on the earth. He is not alone. The closure of the artisanal mine at Bisie has put thousands of people out of work, and tied up millions of dollars' worth of minerals for businessmen who have taken loans from buyers back in the towns. The situation is dangerous, for those miners who were once working are now stealing from people on the roads: "Bisie was our security," the Machine laments, because the work of mining kept people from more violent ways of making a living. The Machine is lucky because he works for the company, but they feed their workers only twice a day. For the Machine and others, coltan was a peace-building mineral because it kept them fed and allowed them to build sustainable futures. The closure of artisanal mines in 2010, and an effective embargo on Congolese minerals since that time, have inaugurated a new kind of conflict and a new sort of violence.

CONFLICT MINERAL OR PEACE-BUILDING MINERAL?

Despite the complex histories of the Congolese conflicts, NGOs have argued to the international community that there is a direct relationship between coltan and conflict.

Unfortunately, the simple argument that some minerals *cause* violent conflict has had immediate and ironic effects. It has allowed international actors to secure a de facto international embargo on Congolese minerals, with devastating effects for Congolese. June 2, 2014, saw the deadline for US companies that purchase minerals sourced from the DR Congo to submit their "conflict minerals report" documentation to the Securities and Exchange Commission in accordance with Section 1502 of the Dodd-Frank Act. The law, which was promoted by prominent international NGOs like the Enough Project and Global Witness, compels American companies to reveal whether the minerals in their products originated in the DRC or any adjoining country, to report on the "due diligence" undertaken to examine the supply chain, and to take measures if the minerals are not "conflict free." In 2010, President Kabila responded to such legislation by abruptly shutting down artisanal mining in the eastern DR Congo, which led to an epic social crisis in those places dependent on mining. In the area around Bisie, the largest artisanal mine in the east, reported malnutrition cases have increased more than tenfold in the last five years.

The new legislation has also made it easier for companies to tighten their grip on miners, using the concept of "conflict minerals" and the association of conflict with artisanal mining to legitimate their claims to artisanally mined land. In Rubaya, North Kivu, the company that purchased rights to the coltan mine there works with an international NGO to track minerals from designated "conflict free" sites. They are the only company that miners can legally sell to, although miners can also smuggle illegally through willing government agents by paying them fees. This company has bought coltan from middlemen on credit, in accordance with a contract that stipulates that the middlemen be paid within two weeks. As of November 2015, the company had held onto these minerals for months because they had not yet received money from their buyer in Asia. Meanwhile, interest-bearing debts are accumulating, and many middlemen have been compelled to sell their homes and take their children out of school—a situation that promises to promote violent conflict between middlemen and the company on the one hand, and middlemen and the diggers on the other. As of September 2015, the middlemen had surrounded the company's office in Goma in an effort to prevent the company from moving those minerals before they were paid; these same middlemen are unable to return to Rubaya for fear of losing their lives, because they owe money to the diggers. It is a clear case of an outside organization—here an NGO working alongside high-tech companies from the United States—unwittingly helping to produce conflict while trying to generate peace because of a narrow and decontextualized understanding of what "conflict" is in the first place.

THE MATERIALITY OF THE DIGITAL AGE

Those who work to extract the minerals used in digital devices produce the conditions of possibility for the so-called digital age. The social forms they generate are as much part of this new world as the "incubators" of Silicon Valley. In some ways, these miners also represent a new category of Congolese—dispossessed people who have lost whatever land they had and for the most part no longer practice agriculture. These miners depend on these minerals and are subject to instabilities in price and various forms of violence—from debt to war. But their dependence is also the source of new forms of sociality, movement, and belonging that didn't exist before. The technologies they make also help to enable these new connections, as well as new ideas about what the future might look like. Miners embrace their incomplete

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"global citizenship" in a number of ways, including the names they give to themselves. Their work is not merely "material," in the sense of being physical, nor does their occupation merely engage them in the dirty work of extracting things from the ground. It also allows them to communicate with deceased ancestors who live in the ground or follow workers through the forests. Mining is as much about rebuilding social worlds across space and time in the wake of war as it is about extracting substances used in digital devices.

ADDITIONAL RESOURCES

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Fuentes:

1. “What’s in Your Cell Phone?” por James H Smith. De: *Global Africa: Into the Twenty-First Century*, editado por Dorothy L Hodgson y Judith A Byfield © 2017 por The Regents of the University of California. Publicado por la University of California Press. (Páginas 289–297.)