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"You just pulled the shit-end of a wishbone": examining the roles of Vicky Arnold and Heather Stevens, the women behind the early *Tomb Raider* franchise

Llewella Chapman

School of History, University of East Anglia, Norwich, UK

ABSTRACT

Previous feminist analysis afforded to the *Tomb Raider* franchise, in particular on the early games, has generally focused on the criticism levelled at the promotion and image of *Tomb Raider's* leading character Lara Croft, who is commonly assumed to be "designed and written by and planned and conceived by a guy written for guys." However, such assumption has led to the erasure of two women who held content-creative roles in the development of the early games in the franchise, *Tomb Raider* (1996) and *Tomb Raider II* (1997), namely Vicky Arnold, scriptwriter, and Heather Stevens (née Gibson), level designer. To date, neither Arnold nor Stevens have been afforded attention from scholars on the significant contribution they made. Therefore, this article seeks to address the omission of Arnold and Stevens through analysing the key individual agencies that both women had when developing the early *Tomb Raider* franchise.

Introduction

Upon *Tomb Raider*'s release in October 1996, the game proved extremely popular with critics and gamers alike, selling 2.5 million copies in the first twelve months and spawning 20 further games as well as film adaptations and graphic novels. Developed by Core Design (Derby, UK), *Tomb Raider* is a third-person action-adventure game where the player assumes the role of female protagonist and adventurer, Lara Croft. As Lara, players visit a series of exotic locations set in Peru, Greece, Egypt and the lost continent of Atlantis in search of an artefact known as the "Scion".

However, not everyone was impressed with the game, particularly in relation to the sexualised marketing of the game's protagonist by *Tomb Raider*'s publisher Eidos Interactive (London, UK) that followed. As pointed out by game scholar Helen W. Kennedy, the feminist reception of the game and its lead character is ambivalent: "It is a question that is often reduced to trying to decide whether she is a positive role model for young girls or just that perfect combination of eye and thumb candy for the boys" (2002). Scholar Soraya Murray similarly recognised: "Scholars and critics tend to consider

the Lara Croft character exclusively from the perspective of gender. Indeed, despite her popularity with players, her highly contested formulation has become somewhat of an icon for virtually everything that is wrong with the representation of female characters in games" (2021, 131).

For example, there was plenty of negative reaction, not least from women working in game development following the release of *Tomb Raider* owing to the way Lara was marketed (Figure 1). Kim Blake, a producer at Gremlin Interactive, referred to Lara as "the usual fantasy art wet dream material" and Andrea Griffiths, Head of PR for Fox Interactive, was dismayed: "Generally, females are portrayed in an overtly sexual way with huge breasts and ridiculously tiny waists. Fantasy as it may be, I find it quite disappointing that degrading and offensive images of female characters are still being promoted in

Figure 1. Promotional render of Lara wearing a black bikini as published in magazines c.1997.

games" (*Next Generation* 1998, 100). Cal Jones, review editor for *PC Gaming World*, felt that the problem was that the character

> was designed by men for men … Lara's not the great feminist icon Eidos would have you believe. She's just a fantasy, and one that is pretty damned impossible for us to live up to … Lara, get those melons out of your vest and I'll like you a whole lot better (Justine Cassell and Henry Jenkins 2000, 338).

Roberta Williams, a game designer at Sierra On-Line, was perhaps the most damning: "We have to remember that Lara Croft was designed and written by and planned and conceived by a guy written for guys. So Lara Croft is not the kind of female that most female players would want to play – to me, she's a guy in drag" (Jennifer Oldham 1998).

The narrative that Tomb Raider is a game "designed and written by and planned and conceived by a guy written for guys" is not strictly correct. While it is recognised that the initiative behind *Tomb Raider* came from the game's lead artist Toby Gard, two women, Vicky Arnold (scriptwriter) and Heather Stevens, née Gibson (level designer), formed part of the small team on both *Tomb Raider* and *Tomb Raider II*, playing key roles in the development of these games. To date, neither Arnold nor Stevens have been afforded attention from scholars on the significant contribution they made on the early *Tomb Raider* games, which this article seeks to address by spotlighting the specific and key roles that both Arnold and Stevens had in creating and shaping what would become a successful British game franchise.

The further aim of this article is to expand upon existing feminist criticism surrounding the *Tomb Raider* games which has in part led to the erasure of Arnold and Stevens. It will demonstrate how making use of primary sources and oral testimony can illuminate women who have historically worked in creative-content roles in the game industry and their experiences, which in part echoes those of others. To research Arnold's and Stevens's contributions on *Tomb Raider*, I have discussed their roles with their colleagues who were employed alongside them at Core Design, including Paul Douglas, lead programmer on *Tomb Raider* and Gavin Rummery, programmer on *Tomb Raider* and lead programmer on *Tomb Raider II*.[1]

Furthermore, I have analysed primary sources, for example the different versions of the game design documents and scripts for *Tomb Raider* that can be accessed online, as well as documents provided by those who have generously shared them with me for this article including the archive held by Association MO5.com (Paris, France). It should be noted that these documents were intended for internal use by *Tomb Raider*'s development team, rather than for public consumption. These primary sources will be compared alongside the games themselves, user manuals, published interviews and reviews in order to offer a comprehensive analysis of Arnold's and Stevens's overall contribution to the early *Tomb Raider* games, their experiences, and their legacy within the franchise.

Scripting *Tomb Raider*: Vicky Arnold

In Version 1 of the game design document penned by Toby Gard, Paul Douglas and Guy Miller (creative manager), Lara Cruz, "erstwhile archaeologist and professional cat-burglar", was named as the protagonist for *Tomb Raider*, a game that "means to set the standard for 3rd person perspective, 'corridor/maze' games" (1994, 1, 2). Influenced by Henry Rider

Haggard's Allan Quatermain, Arthur Conan Doyle's *The Lost World* (1912), the BBC's *Doctor Who* and numerous film references including the *Indiana Jones* film franchise, *Tomb Raider*'s narrative centred on Lara being employed to recover "a number of legendary artefacts" on behalf of Willard Stirling, a British arms manufacturer and multi-billionaire.

Initial artwork of Lara sketched by Gard portrayed her as Hispanic, which is reflected in the choice of surname. However, the game design document emphasised the character's Britishness: Lara had been awarded a PhD in "Archaeology and Comparative Mythology" from the University of Oxford, and was trained by her father who "was a Major in the Special Air Service and he taught her all he knew regarding survival skills and the use of weapons" (7). Presented as a "*babe with a brain*" (emphasis in original), Gard, Douglas and Miller hoped that Lara's inclusion would "inveigle a much neglected sector of the target age group [16+], namely, young females" as well as be attractive to the predominantly male game market, owing to Lara being designed as "*a total babe*" (emphasis in original).

Early in *Tomb Raider*'s development it had been decided that the plot of the game would be revealed to the player via Full Motion Video sequences (FMVs), so as to "heighten the feeling of being part of an ongoing story rather than just playing through a series of meaningless game levels" (Paul Douglas and Toby Gard 1995, 1). Douglas explained that as Miller was working on *Shellshock* (1996), there was a need to employ someone who could write scripts for other games in development at Core Design (via email, April 21 2021). This led to Vicky Arnold being employed as *Tomb Raider*'s script-writer in July 1995. Arnold explained that she had been "happily reading *Empire* on the beach after completing a degree in Film Writing at Bournemouth when I saw an advert" for the role, and as neither "the Asda bakery or a local sandwich shop had wanted me," Arnold "figured I'd apply" (*GameSpot UK* 1998a).

Owing to her educational background, Arnold was more influenced by film than games when contributing to the project: "I became interested in films at about 15, but while I wrote short stories and stuff, I never really thought about the poor souls who actually wrote scripts," admitting that she was more interested in film production and rarely played games: "I like to muck about with them for a bit but I'm never prepared to invest much time in them." Arnold's employment could be perceived as unusual owing to her lack of interest in games. However, it should be acknowledged that in a UK context in the mid-1990s, possessing little desire to play them was not necessarily a barrier to being employed in the industry, with Kim Blake outlining that during this period:

> I got into games by accident. I got a job as a game designer when I not only did not play games, but I didn't like them either. I had no skills except a reasonable facility with words, the ability to communicate with programmers (because I'd lived with one) and an active imagination. This simply would not happen now . . . you got hired on the strength of your creativity and any randomly useful skills you might possess (2011, 247).

In her role as scriptwriter, Arnold was directly involved with the story aspect in *Tomb Raider*'s development, writing the plot, the FMVs, the in-game speech and assisting Nathan McCree, *Tomb Raider*'s music composer, in the recording of voices for the game. By the time Arnold had been employed by Core Design, "Lara was already running around with her 9mms, fully intent on massacring furry animals," and the plot premise was very much determined by the development team as Arnold outlined "they decide on the locations they want to see in the game" (*GameSpot UK*

1998a). Arnold's job was to ensure that *Tomb Raider*'s narrative worked structurally, including "getting Lara from one place to another in the most interesting way and revealing the right information at the right time."

On approaching the process of scripting the *Tomb Raider* games, Arnold explained that it depended on the stage that the development of the game was at: "Initial stages are very team-discussion orientated, then later, I shut myself in my room and stare at a blank screen." Douglas later reflected: "Vicky joined [the team] and she really helped to tighten everything story and character wise," including "a major rewrite" of the plotline (2019a), and Arnold "transformed the script and helped hone Lara's character. She wasn't full time on the team but was crucial" (2019b).[2]

Arnold's first contribution was to develop the plotline of the game, penning a storyline dated August 2 1995. Arnold framed it around Atlantis and its "advanced humanoid civilisation" named the "Atlans" (1995b, 1). Arnold's first full draft of the script, with dialogue "to be finalised"(1995a, 1) was completed by November 10 1995. Owing to Arnold, Lara's "Britishness" became more refined from earlier versions of the game design documents, where Lara had previously been described as "a modern-day adventurer and procurer in rare artefacts, which she relieves from Johnny Foreigner with the gay abandon of a five-year-old stealing Mars Bars from the local corner shop" (Gh0stblade, 2008). More mercenary than Version 1's iteration, Lara now "sells the heritage of these countries for profit, and perverse xenophobic pleasure. The game starts simply with Lara arriving at the entrance to a lost Incan city, with no more grand an idea in mind than a little thievery."[3]

Arnold's refinements to Lara's character can be initially understood by analysing her first and third draft scripts (1996b), the latter included in Version 1.8 of the game design document (Douglas and Gard 1996). In these sources, the storyline and characters had since become more cemented and closer to their presentation in the released game. Lara's surname, Cruz, had been changed to the decidedly more British-sounding "Croft". Douglas explained that the protagonist was made British as that was what the team were culturally familiar with (via email, April 22 2021).

However, between Version 1 and 1.8 of the game design documents, there had been some dubious changes made to Lara's character. Having earned a PhD at the University of Oxford in her original iteration (Douglas, Gard and Miller 1994, 7), Lara had since been academically demoted to having "a degree in needlework" by Version 1.8, and, more bizarrely, was described as enjoying working with "underprivileged children and the mentally disabled" (1996, 5), which could be understood as a rather immature attempt to soften the character's mercenary tendencies and emphasise Lara's femininity. Arnold later distanced herself from this description, attributing it to Gard, and explained that it was she who came up with Lara's finalised aristocratic backstory:

> the rest of her character was a bit vague. Toby was always keen on her being upper-class, so I wrote a history and profile for Lara, basically to find how someone from her finishing school background could end up doing what she does ... Toby's initial character analysis of Lara was something like 'Lara likes to work with underprivileged children ... ' The degree in needle-work got lost along the way (*GameSpot UK* 1998a).

In *Tomb Raider*'s game manual, Arnold wrote the character to be a fiercely independent woman who had eschewed her upper-class, aristocratic background in order to adventure freely across the globe and earning her money through writing travelogues. Arnold based

the character's backstory upon Gard's direction in the game design documents. Lara was now the daughter of Lord Henshingly Croft, and after attending finishing school at the age of twenty-one, was due to be married. However,

> on her way home from a skiing trip her chartered plane had crashed deep into the heart of the Himalayas. The only survivor, Lara learned how to depend on her wits to stay alive in hostile conditions … Unable to stand the claustrophobic suffocating atmosphere of upper-class British society, she realised that she was only truly alive when she was travelling alone … Her family soon disowned their prodigal daughter, and she turned to writing to fund her trips (Arnold 1996a, 2).

Although Lara's PhD was not reinstated, Arnold later explained that instead of a "degree in needlework," the scriptwriter envisaged that: "I have always reckoned it's more in keeping that she didn't actually enter full-time [university] education at Oxford or anything, but did something less refined like an Open University course … probably anthropology … Lara would undoubtedly have posted her work in straight from the field," and believed that Lara would have attended either the University of Oxford or the University of Cambridge during "the residential part [Summer School]" (Brian Chew 1998).

As Arnold alluded, Gard later affirmed in a tongue-in-cheek interview that class was inherently important to how the character was presented in *Tomb Raider*: "I can't somehow imagine her in a council house wearing white stilettos and sporting a fake-blonde perm … [she is] strong not tarty" (Miranda Sawyer 1997, 67). This works to further emphasise Lara's class and Britishness. To strengthen Lara's class beyond her backstory, Arnold revealed that she had been inspired by Cary Elwes's portrayal as Westley and the delivery of his lines in *The Princess Bride* (1987) when penning Lara's dialogue in her *Tomb Raider* script (*GameSpot UK* 1998a). In *Tomb Raider*, Lara was voiced by Shelley Blond to reflect Arnold's direction in the script that Lara "speaks with an upper-class British accent" (Arnold 1995a, 2).

Secondary characters were also portrayed and exaggerated through a British lens in Arnold's scripts. It was Arnold who devised Jacqueline Natla as *Tomb Raider*'s lead antagonist, a former Atlantean ruler who had been imprisoned for war crimes, turned successful businesswoman and CEO of Natla Technologies after her accidental release caused by an underground nuclear test in Australia (Arnold 1995b, 2).[4] Douglas explained that the characters were all intended to reflect Lara in some way, and Natla's forename was chosen to be a subtle reference to the poem *Jacqueline, A Tale* (Samuel Rogers, 1814) that was published in conjunction with Lord Byron's poem *Lara, A Tale* (1814) to emphasise Arnold's characterisation of Lara: "She's no Heathcliff, but she shares a good few qualities of the archetypal Byronic hero" (via email, April 21 2021).

Arnold's characterisation of Natla works to mirror Lara's in that she is also portrayed in the script as a strong, intelligent and independent woman, yet adopts the more mercenary tendencies that were originally intended for Lara in earlier game design documents. By Arnold's third draft script (1996b), Natla's dialogue is written in exaggerated American, for example: "Well your little vacation riot's over now" (20), "Evolution's in a rut" (34) and "A kick in the pants … those runts Qualopec and Tihocan had no idea" (34). Natla's character works ironically to flip the convention, particularly evident in different cycles of Hollywood cinema beginning from the 1930s, that Americans are to be positioned as the "heroes" and the British as the "villains." As recognised by Geoff King and Tanya

Krzywinska, "The 'alien' in [*Tomb Raider*] is largely equated with the 'foreign,' sources of danger to be exploited by the aristocratically situated Lara Croft in the name of high adventure" (2006, 174). Besides the switching of Americans as the villains and Lara as a "very British"/Byronic hero construct, Arnold's draft scripts conceptualise the notion of Britishness in other ways, not least the use of irony and wit in the dialogue, for instance one of Natla's minions, Baldy, tells Lara: "You've just pulled the shit-end of a wishbone" (Arnold 1996b, 19) and Lara coolly replies to Cowboy's "Howdy" with "Afternoon" (19).[5]

Following the release of *Tomb Raider*, Arnold's role expanded to answering letters sent to Core Design from fans, questions from journalists and writing responses as "Lara" for magazines who wished to "interview" the character. To do this, Arnold worked closely with Susie Hamilton, the public relations manager for Core Design. As with her witty and intelligent script that emphasised Lara's Britishness, Arnold scripted her replies on behalf of the character in a similar vein. For Arnold's inspiration, the writer drew upon her characterisation of Lara developed during the production of *Tomb Raider*, and I would also argue that Arnold had elected to mimic Gard and his sly humour that was evident in his, albeit rare, interview responses. For example, when asked whether Lara was based on anyone Gard knew, he quipped: "No. It's not often you meet gun-toting psychopaths down the pub" and on asked about the character's chest size, Gard dryly joked that it was a "Slip of the mouse. I wanted to expand them 50% and then whoops – 150%. Damn" (Sawyer 1997, 67).

Arnold would answer interview questions with variants of a set repertoire that she developed. These responses also work to emphasise and reflect political, cultural and social trends of the late 1990s. Some questions were oft asked, such as who Lara's "ideal man" was, to which the response was Brian Blessed: "I would happily spend a day piggy-backing him up [Mount Everest] in return for a chat" (*GameSpot UK* 1998b). Another was on what "Lara" thought of fans who were upset to discover that the rumoured Nude Raider patch did not exist, and had taken to rendering the character as such themselves. Arnold writing on behalf of "Lara" quipped: "I can only take comfort in the fact that I'm helping budding artists with their life drawing skills, although so far none of them are very flattering are they?" (Martin James 1997, 16).

The character was often asked for her perspective on the Spice Girls and "Girl Power", to which Arnold as "Lara" wittily responded:

> As yet, no one has really clarified the definition of Girl Power for me. If it means getting what you really, really want with a pair of fully loaded Uzis then I can see nothing much wrong with it. If it means singing it too, you can't call me Virtual Spice (James 1997, 16).

The slogan "Girl Power" originated as the title for the fanzine created by the American punk band Bikini Kill, and was published in 1991. Forming part of the third-wave feminist movement, the slogan was intended to encourage and celebrate the empowerment and independence of women. It entered UK mainstream media after it was popularised by the Spice Girls in the mid-1990s. As with the marketing of Lara Croft and *Tomb Raider*, feminists were split between those celebrating that the Spice Girls had reinvigorated mainstream feminism and those who believed that it was little more than a shallow marketing tactic, used to emphasise and present overtly sexualised images of young women.

Other questions that were posed tended to be directed by the genre of magazine in which Lara's interviews were to be published, including what music the character liked and film. In relation to music, "Lara" answered: "To be honest, I spend most of my life listening only to the deadly silence of tombs or to ear-shattering gunfire. Having said that though, my aunty recently lent me *Pretty Hate Machine* [Nine Inch Nails, 1989] which I find quite easy listening" (James 1997, 16). On the film characters Indiana Jones and James Bond, "Lara" thought of the former: "I think that any man who continuously risks his arm for a Fedora hat warrants at least some form of admiration. Personally, I prefer his whip," and regarding the latter: "He appears to be an intelligent man but his main weakness is that he depends too heavily on all those gadgets. I feel that he has yet to fully appreciate the merits of a basic M-16, for example."

Designing Tomb Raider*: Heather Stevens*

By way of contrast to Arnold, Heather Stevens was a graphic artist and level designer who enjoyed playing games. After initially training to be a nursery nurse and having decided that she did not want to pursue that career, Stevens applied to work for Rare, having "always had a keen interest in art . . . I spent most of my time drawing and sketching," and was encouraged to do so on viewing an advertisement in a newspaper that stipulated "any applicants should have an interest in computer games but also in illustration and animation" (Andy Sandham 2020). Stevens was hired based on her portfolio that included "doodles of three or four characters" on graph paper as Stevens knew that Rare "worked in this form of art which included pixels, and I knew that the only way to put pixels into a game was on graph paper" (Dan Wood, Ravi Abbott and Joe Fox 2019), and other illustrations of "bizarre demons, dragons and strange ideas for comics and journals" (Sandham 2020).

Stevens also believed that her gender assisted in being offered the role with the developer:

> The one thing I think that sort of maybe gave me a bit of an edge was being a woman. I'm not going to say that [being a woman] stopped me getting employment, it probably helped in some way, because there was the sort of 'novelty female' attitude at the time working in the company (Wood, Abbott, and Fox 2019).

Stevens' reference to being a "novelty female" in a male-dominated industry is not unique, in that, as an anonymous (male) industry employee working in the Canadian game industry later reflected to scholars Nick Dyer-Witheford and Zena Sharman: "it 'looks good' for a developer to employ 'some girls'" (2005, 203).

During her five-year employment at Rare, Stevens worked on around ten titles that were predominantly 8 or 16-bit games designed for Nintendo that were "very family-orientated games", some as the main level designer and some as a scenic artist (Wood, Abbott, and Fox 2019). Stevens was paid £8,000 per annum (Wesley Yin-Poole 2019), and reflected: "I wasn't very well paid there. There were people starting at the company that were getting paid more than me for doing less than me . . . You got the lads turning up in company cars and I was still [driving] a Volkswagen Beetle that was falling to pieces" (Wood, Abbott, and Fox 2019). Stevens further outlined "I wanted to do something I loved, which is why I stuck it out at Rare . . . the reason was that I did it for the love of it, not the

money" (Daryl Baxter 2021, 94). Stevens's comments have been echoed by other women who have previously worked in the game industry, as scholars Suzanne de Castell and Karen Skardzius summarise,

> women talked about loving their work despite serious obstacles, speaking to the tension between pursuing a career in making games because you love them and the costs of doing so . . . So, while love and passion for games is in one sense a lure for people to pursue game-making, it can simultaneously be the means through which women are exploited (2019, 844).

Nonetheless, Stevens was "always really proud to have worked for Rare," and explained that her "two life changing moments" were "the day that Rare employed me and ironically the day they made me redundant" as that caused her to find employment with Core Design (Wood, Abbott, and Fox 2019).

On the difference in working environment between Rare and Core Design, Stevens reflected: "At Rare, everything was very programmer driven . . . whereas at Core Design, I found that the programmers were there to code and it was the artists that often led the games and what was created." Stevens explained on being a woman within the small development team: "I was always a bit of a tomboy anyway, so getting along with the guys was not a problem," and referencing her working-class background, "girls just ran around with the boys and you didn't see it as a kind of 'them and us' situation" (2021).

At Core Design, Stevens first worked with fellow level designer Bob Churchill on *Skeleton Krew* (1995), an action game developed for the Sega Mega Drive that used an isometric perspective, which Stevens felt "very much suited my style" (Sandham 2020). Having finished on the development of this game, Stevens found herself "at a loose end," and asked Gard and Douglas whether she could sit in with them on their discussions for *Tomb Raider*: "I looked at some of the artwork [Gard] created for *Tomb Raider*, and couldn't wait to help design the game with them."

Stevens and Neal Boyd were employed as the main level designers for *Tomb Raider*: Douglas and Gavin Rummery created a specific game engine and design tools, termed an "Anim Editor" and a "Room Editor," for the artists to use.[6] This made Stevens's and Boyd's role easier, in part because the level design software could create texture in real time. Combined with this, the atmosphere at Core Design assisted in Stevens's creativity: "The nice thing about level design at the time was how free it was. We could pretty much come up with any idea." Locations for *Tomb Raider* were discussed early in the process, influenced by those deemed inspirational by the development team, and came to include Peru, Greece, Egypt and Atlantis. To create the look and atmosphere for the levels, Stevens and Boyd referenced images published in books obtained from local shops in Derby.

Stevens explained that the process of determining levels and puzzle scenarios for *Tomb Raider* took place "at least once a month," including "generic puzzle scenarios that the gamer became familiar with—such as pushing blocks or avoiding traps and special events specific to a particular setting" (Ash Kapriélov 2014). Regarding the blocks, Stevens noted their inclusion was, in part, so that the player could change floor heights (Sandham 2020). This element of *Tomb Raider*'s level design was inspired by both the 2D platform game *Prince of Persia* (1989) and John Woo's action film *Hard Boiled* (1992), including traversing
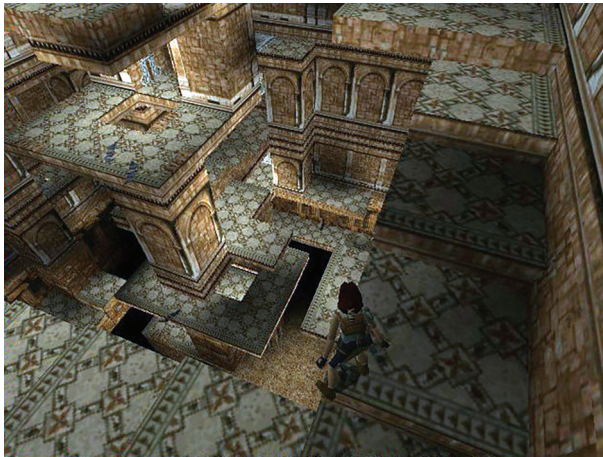
Figure 2. 'St. Francis' Folly' level designed by Stevens.

levels upwards and using dual pistols combined with an acrobatic fighting style to enhance the spectacle of different level terrains.

The level design was to form a vital part of *Tomb Raider* in that the player could traverse and explore levels *vertically* not just horizontally, as the majority of games that were produced at this time were want to do. Analysing both *Tomb Raider* and *Tomb Raider II*, it becomes evident that of the level designers involved, it was Stevens who most embraced the vertical-style of gameplay, emphasised by her "St Francis' Folly" level in *Tomb Raider* (Figure 2) and her rather eccentrically-designed "Floating Islands" level in *Tomb Raider II* (Figure 3). Stevens outlined on the "St Francis' Folly" level:

> I just thought it would be interesting if all of these rooms were centred around a central shaft in the level. So what I created was a really long, deep room, and off that long, deep room, four doors to each one of the challenges was available to you. And by doing that you've
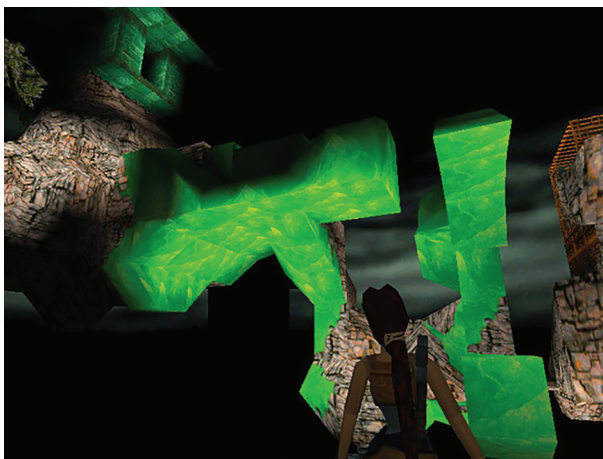

Figure 3. 'Floating Islands' level designed by Stevens.

Figure 4. The 'Atlantis' level with texture designed by Stevens.

automatically given Lara this tower area to explore up and down the centre of the shaft that you've created (Richard Moss 2017).

In *Tomb Raider*, Stevens was tasked with designing the training level, set in Lara's Manor, and the first two Vilcabamba levels of the game. As Stevens "had no idea that millions of people would eventually play" *Tomb Raider*, the designer explained that she felt no particular pressure that the levels she created would be the first experienced by the player, and went about it "confidently":

> I enjoyed designing this level ['Caves'/'City of Vilcabamba'] very much. The Room Editor that we used to create the environments had limitations which I used to my advantage. The cave system meant that players didn't question the lack of sky and landscape which was difficult to produce with this engine (Kapriélov 2014).

Stevens was also responsible for designing the majority of the textures used in both games: "I was quicker at tiling than Neal, and I think he found it boring", and as with the level locations, used books and photographs as inspiration for the textures. For example, Stevens based the textures for the Atlantis levels from pictures published in a human anatomy book (Figure 4). Many reviewers and players praised the exploration element afforded within the game: besides the enemies and the puzzles, players had the opportunity to take their time to view the visually impressive and imaginative terrains designed by Stevens (Figure 5), Boyd and Gard. As Charlie Brooker wittily put it: "now, thanks to Core Design, it's possible to be an explorer without leaving your *seat* ... *Tomb Raider*'s environment is utterly believable. Architecturally, it's often stunning ... some of the architecture is prettier than Lara herself" (emphasis in original 1996, 75, 78).

Of the first two games, it was Stevens who was involved in designing or polishing the majority of levels for both, as is reflected in Table 1. Rummery has elucidated that owing to time constraints, two further designers were employed to create levels for *Tomb Raider II*, Peter Duncan ("Barkhang Monastery") and Richard Morton ("Temple of Xian"). Once these two levels were designed, Stevens worked

Figure 5. Stevens's terrain design for 'City of Khamoon'.

Table 1. Level designers for *Tomb Raider* and *Tomb Raider II*. Source: Gavin Rummery.

Tomb Raider levels	Level designer	*Tomb Raider II* levels	Level designer
Manor	Heather Stevens	Manor	Heather Stevens
Caves	Heather Stevens	The Great Wall	Neal Boyd
City of Vilcabamba	Heather Stevens	Venice	Gavin Rummery
			Heather Stevens
Lost Valley	Neal Boyd	Bartoli's Hideout	Heather Stevens
Tomb of Qualopec	Neal Boyd	Opera House	Heather Stevens
St. Francis' Folly	Heather Stevens	Offshore Rig	Neal Boyd
Colosseum	Neal Boyd	Diving Area	Neal Boyd
Palace Midas	Neal Boyd	40 Fathoms	Neal Boyd
The Cistern	Heather Stevens	Wreck of the Maria Doria	Neal Boyd
Tomb of Tihocan	Heather Stevens	Living Quarters	Neal Boyd
City of Khamoon	Heather Stevens	The Deck	Neal Boyd
Obelisk of Khamoon	Heather Stevens	Tibetan Foothills	Neal Boyd
Sanctuary of the Scion	Toby Gard	Barkhang Monastery	Peter Duncan
			Heather Stevens
Natla's Mines	Neal Boyd	Catacombs	Heather Stevens
Atlantis	Neal Boyd	Ice Palace	Heather Stevens
The Great Pyramid	Neal Boyd	Temple of Xian	Richard Morton
			Heather Stevens
		Floating Islands	Heather Stevens
		The Dragons Lair	Heather Stevens
		Home Sweet Home	Heather Stevens

to "fix" these levels to "make them game ready" (via email, February 10 2023). To assist in ensuring the game was delivered to Eidos in time for its release, Rummery built the "Venice" level over the course of a weekend, creating the opening sections and mapping out the canal layout through greyboxing sections in the later part. Stevens "then fleshed out the canal sections and finished everything off."[7]

Leaving the industry

De Castell and Skardzius recognise that one of the key questions posed since the 1990s has been regarding the reasons behind why women leave the game industry (2019, 836). Arnold left Core Design shortly after the completion of *Tomb Raider III: The Adventures of Lara Croft* (1998), and it remains unclear as to why. The evidence available suggests that she has not worked within the industry since.

Stevens, however, has elucidated on her reasons for leaving. After *Tomb Raider II* had been delivered to Eidos in time for its scheduled Christmas release in 1997, Stevens has outlined how the development team were extremely fatigued having worked for three years on developing the first two games: "It was mostly a fun team effort for me, but I won't romanticise the experience and I'm not embarrassed to say the whole team felt a little burnt out at the end of *Tomb Raider II*" (Baxter 2021, 133) having not had time off between developing the first two games.

Boyd explained that they were permitted a four-week break following the release of *Tomb Raider II* before returning to the expectation from Eidos and Jeremy Heath-Smith, co-founder and CEO of Core Design, that they would begin work immediately on *Tomb Raider III* so as to make the agreed delivery time for a Christmas 1998 release (Yin-Poole 2019). The team began working on the project, but wanted more time to complete it and were refused. After collectively offering their resignation, Heath-Smith suggested a new team would take over on delivering *Tomb Raider III*, and the former team would instead be afforded the creative freedom to develop a game of their choosing for a better royalty rate: this project would be released as *Project Eden* (2001).

As recognised by Dyer-Witheford and Grieg de Peuter, "the game studio is a place of creative camaraderie . . . but it is also often obsessively hard driving, punishingly disassociated from rhythms of domesticity, sleep, and nourishment," leading to the workplace environment becoming "a barrier to the participation of women, who will often carry the burden of a 'second shift' of child-care and domesticity awaiting them at home" (2006, 607). In relation to this, Stevens has outlined that she elected to go home to work on projects in the evening, rather than stay late in the office: "I felt that I had to get home, even if it was just to be in the same room as my partner. Granted, he might not have got much of a conversation out of me, but just to keep our relationship, there was no way I could afford to spend hours and hours in the evening at Core Design" (Yin-Poole 2019).

It was after the completion of *Project Eden* that Stevens left Core Design to start a family: "I fell pregnant with my daughter so I felt it was time for me to be a mum . . . I didn't really intend on coming back." However, Stevens acknowledges that: "It broke my heart. I was really caught between two things I desperately wanted in life, but two things I knew I couldn't make work together." This is not uncommon: Leigh Alexander has interviewed other women who have also struggled to balance family responsibilities with a career in games (2014). For example, Leanne Bayley, having formerly worked as a creative producer at Remode Studio (UK), explained that motherhood "pretty much mothballed" her career working in the industry, owing to the long office hours and the "crunch times" in a game's development, which relates to Stevens's comments of feeling "burnt out," and how Stevens felt that the two responsibilities were incompatible with one another.

Gendered perceptions and the erasure of Arnold and Stevens

Media and critical analysis concerned only with the marketing for *Tomb Raider* is limited and ignores the context of the game's production, in which Arnold and Stevens played a vital role, as well as the narrative, characterisation and gameplay evident within the game. Indeed, players need only to complete until the end of the "Tomb of Qualopec" level in order to see Lara get the better of Larsen both intellectually and physically in FMV 2 (Figure 6). As gameplay progresses, players see Lara positioned in a number of intelligent puzzle-solving situations which showcase her athleticism and strength regardless of her gender.

Furthermore, owing to Arnold's contribution to the *Tomb Raider* script and her creation of Natla as the main antagonist, the game passes all three points of the Bechdel-Wallace test, the minimum measure to indicate representation, or lack, of women in media texts, in that it has two leading and named female characters, they talk to one another, and they talk to one another about "something besides a man". As explained by Kay Steiger, "This test has become the standard by which feminist critics judge television, movies, books, and other media" (2011, 104). Relating to this, Figure 7 demonstrates how both Lara and Natla are afforded the highest percentage of the dialogue throughout the game. The male characters are presented as inferior foils to the leading female characters, and all are killed by Lara, seemingly without a sense of remorse. And although Natla may be afforded more dialogue, Lara has the last line with her guns.

As it was Arnold, in particular, who developed Lara's and Natla's characters, and Arnold scripted the dialogue and finalised FMVs, this demonstrates the positive impact that women can have in developing in-game female representation, going beyond the "damsel in distress" stereotype. Thus, the marketing of *Tomb Raider* may conform to and promote negative female gender stereotypes, but the game itself does not. As Heather Daniels, editor of a San Francisco game fanzine aimed at women, put it: "I love Lara Croft —it's cool that she's a woman, and she's strong and buff. She's kick-ass" (*Next Generation* 1998, 100). Even Stephanie Bergman, writing for the fan site *Game Grrlz* and who "hated" Lara, admitted that she was amused when overhearing a teenage girl on the New York subway state that *Tomb Raider* was "the best game" and telling a group of teenage boys who expressed a preference for the Nintendo 64: "Nintendo 64s are for babies. PlayStation. *Tomb Raider*. Kill things, not jump on things" (Cassell and Jenkins 2000, 329).

Stevens has often been exasperated over the negativity surrounding the character's perceived image (Wood, Abbott, and Fox 2019). This relates to the experiences of other women working in the game industry in that they "have persistently and emphatically conveyed their frustration about having to speak repeatedly about and for their gender" and have "articulated their frustration and fatigue in relation to the topic of 'gender and the games industry'" (de Castell and Skardzius 2019, 837). For example, on being interviewed by a female presenter on *Newshour* for BBC News World Service, Stevens was asked about Lara's vital statistics and the perceived derogatory portrayal of a female character:

> Presenter: I mean, you're a woman who works in this industry, does it ever offend you? Do you find it an objectionable portrayal of women? Because it does feel like a kind of impossible type of woman.
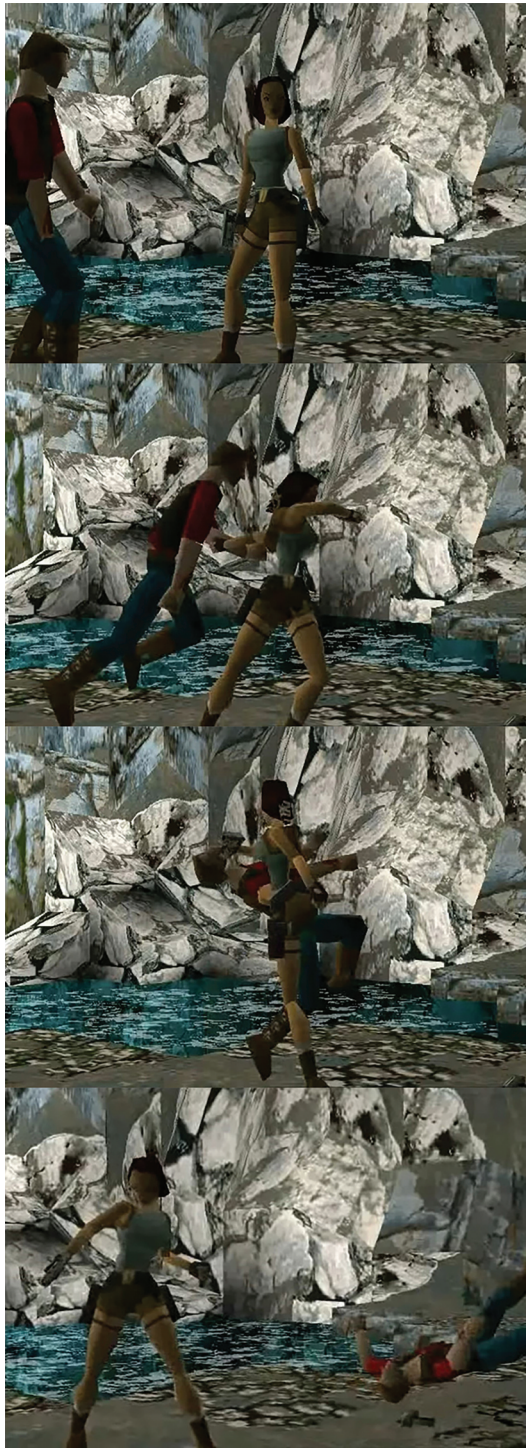
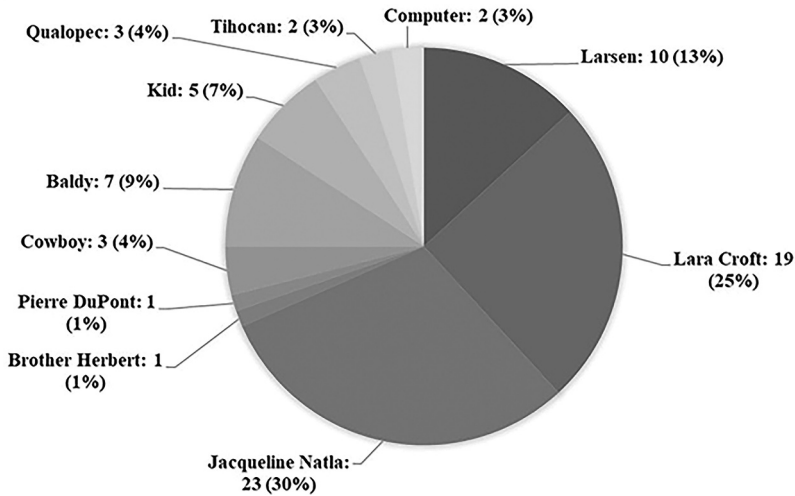**Figure 6.** Lara gets the better of Larsen in *Tomb Raider*.

Figure 7. Number of script lines and percentage of dialogue afforded to each character in *Tomb Raider*.

> Stevens: Yes, it does feel an impossible type of woman, but I think also quite inspirational. The Lara Croft that I knew in the game was independent, intelligent, didn't need a man to complete a task. So, on that front, I don't think you can see any objection to how she was portrayed as a woman (October 25, 2016).

That the presenter chose to focus on Lara's image as opposed to Stevens's work as a level designer on *Tomb Raider* is both representative of the main critical focus on the franchise, and the lack of engagement by the mainstream news media in encouraging women working in the game industry to talk directly about their work.

This in turn has contributed to the erasure of Arnold and Stevens from the narrative of *Tomb Raider*'s development in academic scholarship. It is notable that it is mainly fans of the franchise who have directly interviewed Stevens regarding her work on the games (Baxter; Kapriélov; Wood, Abbot and Fox et al), and to date, only two fan articles have interviewed Arnold directly about her contribution (Chew 1998; *GameSpot UK* 1998a), with the scriptwriter mainly heard through the "speech" of Lara in the games Arnold scripted and in written "interviews" with the character instead.

Conclusion

It is understandable why the predominant focus from both the mainstream media and feminist scholarship has been on the overly-sexualised marketing of Lara Croft, in part exacerbated by comments such as those made by Ian Livingstone, Chairman of Eidos, who was quoted in the *Daily Star* as saying that Lara's popularity was merely based on: "What would you rather watch—some hairy-arsed scaffolder or the pert-bottomed, large breasted Lara Croft?" (David Paul 1999, 13). Crude though this statement is, it nevertheless captures Eidos's approach to the marketing of the character in the late 1990s, an era which oversaw a rise in the publication of "lads' mags" and the promotion of "ladette" culture. Gard himself left Core Design shortly after the game's release owing to his irritation over the way Lara's

image had been overly sexualised in the marketing of the game: "It was never the intention to create some kind of 'Page 3' girl to star in *Tomb Raider*. The idea was to create a female character who was a heroine, you know, cool, collected, in control, that sort of thing. . . " (David Jenkins 1998).

However, this focus has in turn led to the erasure of women working in the game industry who have helped shape and develop this franchise, in particular the work of Arnold and Stevens. By acknowledging and analysing the role that both Arnold and Stevens had in developing the early *Tomb Raider* franchise, this article creates a platform for future studies to move beyond debates of how Lara as a character has been presented and marketed, and instead develop arguments relating to how these games are not merely "designed and written by and planned and conceived by a guy written for guys." Since the employment of Arnold and Stevens, other women have worked as producers, writers and crew members to assist in the development of the *Tomb Raider* games for Core Design, Crystal Dynamics and Square Enix, and have yet to be recognised fully in academic scholarship relating to *Tomb Raider*. It is hoped that this article provides a platform with which to develop this approach in the future.

Notes

1. I have not been able to trace Vicky Arnold during the process of researching this article, meaning that highlighting her specific contribution to the early *Tomb Raider* franchise is all the more pertinent. Heather Stevens was unavailable for interview for this article, and therefore I have based my research on published interviews with both Arnold and Stevens.
2. Core Design split up its employees into teams to work on different games that were being produced at the same time. So, although Arnold worked part time on *Tomb Raider*, she worked on other Core Design games simultaneously (Douglas via email, April 21 2021). Arnold scripted *Swagman* (1997) and *Ninja: Shadow of Darkness* (1998) (*GameSpot UK* 1998a).
3. Tomb Raider fan Gh0stblade acquired photographs of Version 1.3 of the game design document that had been on display "in a museum" which they published on a website (2008). This document was displayed in the *Game On* exhibition, held at the Science Museum in London (2006–2007) and other locations as it toured worldwide. The Version 1.3 that was "restored" and released by Crystal Dynamics in 2021 appears to have removed these controversial comments regarding Lara's character.
4. This was later changed to a nuclear test site in Los Alamos, New Mexico.
5. Baldy's line was changed to "You've just pulled the duff-end of a wishbone" in the released game.
6. The "Room Editor" allowed the level designers to build and texture the levels, and the "Anim Editor" was used by Gard, as the animator and character designer, to import wireframe characters for them to be textured. The character's animations could then be imported, sequenced and marked up to trigger sounds, graphics effects and to interact with the game's code and logic. Confirmed by Douglas via email, March 18 2021.
7. "Greyboxing" refers to building a simplified environment to test the layout of a level and associated gameplay.

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Notes on contributor

Llewella Chapman is the author of *Fashioning James Bond* (Bloomsbury, 2022) and *From Russia With Love* (BFI/Bloomsbury 2022). Her research interests include British cinema, film production, video-games, costume and gender.

References

Alexander, Leigh. 2014. "Taking on the Challenges of Being a Mom in Game Development." *Game Developer* Accessed on 8 August 2022. https://www.gamedeveloper.com/business/taking-on-the -challenges-of-being-a-mom-in-game-development

Arnold, Vicky. 1995a. *Tomb Raider* Script. First draft, November 10. UK: Core Design. Accessed via Association MO5.

Arnold, Vicky. 1995b. *Tomb Raider* Storyline. Version 1, August 2. UK: Core Design. Accessed via https://www.tombraiderchronicles.com/tr1/core-design-tomb-raider-design-documents-updated-storyline-01.html

Arnold, Vicky. 1996a *Tomb Raider* Game Manual. UK: Core Design.

Arnold, Vicky. 1996b. *Tomb Raider* Script. Third draft, February 26. UK: Core Design. Accessed via Association MO5.

Baxter, Daryl. 2021. *The Making of Tomb Raider*. Yorkshire and Philadelphia: Pen and Sword White Owl.

Blake, Kim. 2011. "A Woman in Games: A Personal Perspective, 1993 – 2010." *International Journal of Gender, Science and Technology* 3 (1): 244–249.

Brooker, Charlie. 1996 December. "*Tomb Raider*." *PC Zone*, 74–79.

Cassell, Justine, and Henry Jenkins, eds. 2000. *From Barbie to Mortal Kombat: Gender and Computer Games*. Massachusetts: MIT Press.

Chew, Brian. 1998. "Lara Croft – Biographical Sketch." *Tomb Raiders Traveller's Guide*, Accessed on March 7 2021. http://web.archive.org/web/20160219062323/http://www.trinity.westhost.com/tomb/lara.html

de Castell, Suzanne, and Karen Skardzius. 2019. "Speaking in Public: What Women Say About Working in the Video Game Industry." *Television & New Media* 20 (8): 836–847. doi:10.1177/1527476419851078.

Douglas, Paul. 2019a. Twitter Post. September 3, 2.15 p.m. Accessed on March 8 2021. https://twitter.com/cnhyv/status/1168875220670832641

Douglas, Paul. 2019b. Twitter Post. October 25, 9.54 p.m. Accessed on March 17 2021. https://twitter.com/cnhyv/status/1187834742105919488

Douglas, Paul, and Toby Gard. 1995. *Tomb Raider* Game Design Document. Version 1.3, March 20. UK: Core Design. Accessed via https://core-design.com/goodies_tr1_gamedesigndocuments.html

Douglas, Paul, and Toby Gard. 1996. *Tomb Raider* Game Design Document. Version 1.8, May 9. UK: Core Design. Accessed via https://www.tombraiderchronicles.com/tr1/tomb-raider-game-design-document-1.8.pdf

Douglas, Paul, Toby Gard, and Guy Miller. 1994. *Tomb Raider* Game Design Document. Version 1, December 16. UK: Core Design. Accessed via https://archive.org/details/tomb-raider-1.0/mode/2up

Dyer-Witheford, Nick, and Grieg de Peuter. 2006. ""EA Spouse" and the Crisis of Video Game Labour: Enjoyment, Exclusion, Exploitation, Exodus." *Canadian Journal of Communication* 31 (3): 599–617. doi:10.22230/cjc.2006v31n3a1771.

Dyer-Witheford, Nick, and Zena Sharman. 2005. "The Political Economy of Canada's Video and Computer Game Industry." *Canadian Journal of Communication* 30 (2): 187–210. doi:10.22230/cjc.2005v30n2a1575.

GameSpot UK. 1998a. "*Tomb Raider* Behind the Scenes Part 2: An interview with Vicky Arnold." Accessed on March 7 2021. https://web.archive.org/web/19981201052730/http://www.gamespot.co.uk/pc.gamespot/action/tombraid2/interview2/

GameSpot UK. 1998b. "Lara Week: Interview 2, Lara Croft." November 28. Accessed on March 7 2021. https://web.archive.org/web/19990218064330/http://www.gamespot.co.uk/pc.gamespot/action/tombraid2/lara_interview.html

GhostBlade. 2008. "*Tomb Raider* beta (PSX/Saturn/PC)." *Unseen 64*, 5 August. Accessed on March 11 2021. http://web.archive.org/web/20150415090637/https://www.unseen64.net/tag/core-design/page/3/

James, Martin. 1997. "Lara Croft: A Lorra Lara Laughs with Britain's Coolest Cyberbabe." *Melody Maker*, November 29: 14–16.

Jenkins, David. 1998. "Interview with Toby Gard." *Gamasutra* Accessed on March 20 2021. https://www.gamasutra.com/view/feature/131700/interview_with_toby_gard.php

Kapriélov, Ash. 2014. "Interview with Heather Gibson." *Tomb of Ash* Accessed on March 12 2021. https://www.tomb-of-ash.com/interview-with-heather-gibson/

Kennedy, Helen W. 2002. "Lara Croft: Feminist Icon or Cyber Bimbo? On the Limits of Textual Analysis." *Game Studies* 2 (2). Accessed on March 7 2021. http://www.gamestudies.org/0202/kennedy/.

King, Geoff, and Tanya Krzywinska. 2006. *Tomb Raiders and Space Invaders: Videogame Forms and Contexts*. London and New York: I.B. Tauris.

Moss, Richard. 2017. "The *Tomb Raider* Grid (Part 1)." *The Life & Times of Videogames* Accessed August 12 2022. https://lifeandtimes.games/episodes/files/7.html.

Murray, Soraya. 2021. *On Video Games: The Visual Politics of Race, Gender and Space*. London and New York: Bloomsbury.

Newshour. 2016. News Bulletin. 25 October. UK: BBC World Service. Accessed August 12 2022. https://www.bbc.co.uk/programmes/p04d3yvr

Next Generation. 1998. "Girl Trouble." January, 98–102.

Oldham, Jennifer. 1998. "Few Makers of Video Games are Playing to Women." *Los Angeles Times* Accessed on 7 March 2021. https://www.latimes.com/archives/la-xpm-1998-may-25-fi-53264-story.html

Paul, David. 1999. "Tycoon's £30 Million Pay Station." *The Daily Star*, 13.

Sandham, Andy. 2020. "Heather Stevens – from Rare to *Tomb Raider* and the Birth of Lara Croft . . ." *YouTube* Accessed on March 12 2021. https://www.youtube.com/watch?v=FLANwaBaKEA

Sawyer, Miranda. 1997 June. "Lara Croft: The Ultimate Byte Girl." *The Face*, 64–70.

Steiger, Kay. 2011. "No Clean Slate: Unshakable Race and Gender Politics in *The Walking Dead*." In *Triumph of the Walking Dead*, edited by James Lowder, 99–114. Dallas: BenBella Books.

Stevens, Heather. 2021. "The Making of *Tomb Raider*: 25th Anniversary Panel." Live event. 23 October. Derby, UK: QUAD. Accessed on August 12 2022. https://www.youtube.com/watch?v=IHCLQlZuJ8M

Tomb Raider. 1996. Videogame. Lead Programmer: Paul Douglas. UK: Core Design.

Tomb Raider II. 1997. Videogame. Lead Programmer: Gavin Rummery. UK: Core Design.

Wood, Dan, Ravi Abbott, and Joe Fox. 2019. "The History of *Tomb Raider* with Heather Gibson." *The Retro Hour* 198. Accessed on March 12 2021. https://www.youtube.com/watch?v=2iYYnFeuh0M

Yin-Poole, Wesley. 2019. "20 Years On, the *Tomb Raider* Story Told by the People Who Were There." *Eurogamer* Accessed on March 12 2021. https://www.eurogamer.net/articles/2016-10-27-20-years-on-the-tomb-raider-story-told-by-the-people-who-were-there