

## The Chariot: A Weapon that Revolutionized Egyptian Warfare

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Egypt is one of the oldest civilizations in the world, with a history spanning thousands of years. During one epoch, known as the New Kingdom (approximately 1570 to 1085 BCE), Egyptian pharaohs actively sought to expand and strengthen their empire with a military that mastered the art of chariot warfare. Egyptians, however, did not invent the chariot and the weapons of the Bronze Age, but were introduced to them by outside invaders at a time when the Egyptian military was centered on the infantry. At the time of the invasion, Egyptian weapons were obsolete compared to the rest of the world. The introduction of the horse and chariot in Egypt was a turning point in its history. With these new weapons Egypt was able to transform its military into one of the largest and most powerful in the world, allowing Egyptian pharaohs to expand their control and influence in the world.

Around 1700 BCE an outside nation, known as the Hyksos, invaded Egypt and slowly took control both militarily and politically. The Hyksos people introduced to Egyptians the horse, chariot and modern Bronze Age weapons. The chariot developed around 2000 BCE, and the Indo-Iranians were the first to use a chariot similar to those of the Hyksos—“light, two wheeled and spoked.”<sup>1</sup> Use of the chariot spread through trade, travel, conquest, and migration. The Hyksos began their invasion of Egypt around 1720 BCE during the Middle Kingdom (2040 to 1645 BCE). The Middle Kingdom was weakening both militarily and politically, and the army was incapable of protecting itself from outside attacks. The Hyksos invasion was not a single military event, for it was some fifty years before the Hyksos established absolute control over Egypt. However, there is no doubt that their military superiority was a major factor in their takeover.<sup>2</sup>

As Historian Richard A. Gabriel writes, “The Egyptian soldier confronting the Hyksos must have been terrified by these new weapons.”<sup>3</sup> Egyptians had never been exposed to weapons such as the composite bow, the penetrating axe. The composite bow was probably first used by the military of Naram Sin, ruler of the Akkadians from 2254 to 2218 BCE. This bow had a range two hundred yards greater than the Egyptian bows, and it was smaller, lighter and more powerful.<sup>4</sup> At the time of the Hyksos invasion the Egyptians were still using the blade axe, which was far less powerful than the socket penetrating axe of their enemy. The discovery of bronze made the axe more powerful, but it was not until around 2500 BCE, when the Sumerians began to make the socket and the blade into one piece, that the full power of the penetrating axe was utilized. This method of axe production was also used by the Hyksos, while the Egyptians were still using the old style of axe production. The socket penetrating axe became, as Gabriel

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<sup>1</sup> Alfred S. Bradford, *With Arrow, Sword and Spear: A History of Warfare in the Ancient World* (Westport, Connecticut: Praeger Publishers, 2001), 13.

<sup>2</sup> Troy Fox, *Who Were the Hyksos*, <http://www.touregypt.net/featurestories/hyksos.htm>.

<sup>3</sup> Gabriel, *Armies of Antiquity*, 63.

<sup>4</sup> *Ibid.* 28.

writes, “one of the most devastating close combat weapons of the Bronze and Iron ages.”<sup>5</sup>

The superior weapons of the Hyksos were amplified by the poor body armor of the Egyptians, which made them far more vulnerable to blows than the well-protected Hyksos. A blow from the outdated Egyptian mace was not powerful enough to penetrate the armor being used by Hyksos’ soldiers.<sup>6</sup> However, as important as superior weapons and armor were to the Hyksos victory, neither was as important as the chariot. The original Hyksos chariots were probably drawn by two horses and carried two soldiers. One man would drive the chariot while the other fired his bow or threw his spear. Missiles could be launched from a stationary position or while in motion. The effect of these chariots on the Egyptian army has been compared to that of the tank on twentieth-century warfare.<sup>7</sup>

The name “Hyksos” was once thought to mean “shepherd kings” but this is now regarded as incorrect. The scholarly consensus is that the Hyksos were called *hekaw khaset*, or “rulers of a foreign land” by the Egyptians during the invasion. It is from this that the Greeks derived the term “Hyksos.”<sup>8</sup> By 1720 BCE these foreign rulers established their capitol in the city of Avaris, in the northeastern Delta, and by 1674 they had taken the ancient city of Memphis, a key city to controlling Upper and Lower Egypt. Once in power they maintained strict control and established a line of Hyksos rulers in Upper Egypt. The rest of Egypt remained only under tribute to the Hyksos rulers. While they established their own governmental positions they decided to keep many Egyptian traditions intact.<sup>9</sup> They brought some of their own gods, but mostly they honored those of the Egyptians.<sup>10</sup>

Little archaeological evidence is found to describe the time of Hyksos rule. The information provided by Egyptians, who did not want nor appreciate outsider rule, is likely biased, and much of what was recorded can be considered propaganda that at least stretches the truth. One example comes second-hand from a Jewish historian named Josephus, who claimed to quote an Egyptian named Manetho, who recorded what happened during the Hyksos invasion:

...invaders of obscure race marched in confidence of victory against our land. By main force they easily seized it without striking a blow; and having overpowered the rulers of the land they burned our cities ruthlessly, razed to the ground the temples of the gods and treated all the natives with cruel hostility, massacring some and leading into slavery the wives and children of others.<sup>11</sup>

From archaeological evidence at Egyptian religious sites it seems, perhaps not surprisingly, that most of what Josephus quoted from Manetho is not true. The Hyksos did not ravage the country and burn the temples, and there is not any evidence of the

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<sup>5</sup> Gabriel and Metz, *Sumer to Rome*, 60-61.

<sup>6</sup> Gabriel, *Armies of Antiquity*, 25.

<sup>7</sup> Leonard Cottrell, *The Warrior Pharaohs* (New York: GP Putnam's Sons, 1969), 57.

<sup>8</sup> David O'Connor, “The Hyksos Period in Egypt”, ed. Eleizer D. Oren (Philadelphia: University of Pennsylvania Museum, 1997), 48.

<sup>9</sup> Bradford, *Arrow, Sword, Spear*, 21.

<sup>10</sup> *Ibid.* 21.

<sup>11</sup> John Van Seters, *The Hyksos: A New Investigation*, (New Haven: Yale University Press, 1966), 121.

Hyksos acting ruthlessly and forcing people into slavery. The Hyksos appear to have ruled in a manner very similar to the Egyptian rulers. However, foreign rule is almost always less palatable, and it would have been very easy to want to vilify the Hyksos.<sup>12</sup>

While the Hyksos were ruling Upper Egypt, Theban Kings still maintained their throne in Lower Egypt. These Theban kings had to pay tribute to Avaris but were able to act independently from the Hyksos kings. With the introduction of the composite bow and the chariot, the Egyptians gradually began to realize their potential to dominate warfare. However, it took time for the Egyptians to acquire the necessary horses and chariots to challenge the Hyksos, and the Hyksos would rule for two hundred years before the Egyptians could reconquer their kingdom.<sup>13</sup>

At the beginning of the Seventeenth Dynasty Egyptians were attempting to preserve their own customs and religion after 200 years of Hyksos domination. In Thebes, King Seqenenre still worshiped the Egyptian god Ra and encouraged his people to do the same. The Hyksos King Apopi, of Avaris, was angered by Seqenenre's defiance<sup>14</sup> and sent a messenger to Seqenenre demanding that the Thebans cease the worship of Ra. The assertion of authority by Apopi angered the Egyptians began to revolt against the Hyksos.<sup>15</sup> Exactly what happened next between Apopi and Seqenenre is unclear, but it is evident that there was some kind of battle between the two kings. Archaeologists have discovered Seqenenre's skull with horrible wounds that appeared to be caused by a spear or an axe.<sup>16</sup> However, despite Seqenenre's evident demise in battle, the revolt marks the beginning of the expulsion of the Hyksos by Egyptians attempting to regain their own land.

King Seqenenre began a quest that his successors would continue. His son Kamose would take the throne and wage war against the Hyksos by land and by sea. In 1954 Labib Habachi, an Egyptian archaeologist discovered the "victor stela," an artifact that relates Kamose's account of his campaigns: "I overthrew them, I razed his wall, I slew his people...my soldiers were like lions with their prey, with serfs, cattle, milk, fat and honey, dividing up their possessions."<sup>17</sup> Kamose ordered his army to defeat the enemy and to destroy their cities in a total war campaign against the "rulers of a foreign land." The new revolt against the Hyksos was demonstrating success but Kamose did not live to see his enemy fall. His successor, Ahmose I would be left with the task of bringing Egypt back to the Egyptians.

Ahmose I ushered in the eighteenth pharaoh dynasty and a new era in Egypt without the Hyksos in power. He led Egyptian armies to victory against the Hyksos using the same weapons the Hyksos used to conquer Egypt. Moreover, over a period of some 200 years, the Egyptians had mastered the use of bronze, greatly increasing their artillery power,<sup>18</sup> and they had developed a military with professional skills that would

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<sup>12</sup>Fox, *Who Were the Hyksos*, www.touregypt.net.

<sup>13</sup> Bradford, *Arrow, Sword and Spear*, 21.

<sup>14</sup> Bradford, *Arrow, Sword, Spear*, 21-22.

<sup>15</sup> Cottrell, *Warrior Pharaoh's*, 95-96.

<sup>16</sup> Peter A. Clayton, *Chronicle of the Pharaoh's: A Reign by Reign Record of the Rulers and Dynasties of Ancient Egypt*, (London: Thames and Hudson, 1994), 96 shows his skull, discovered in 1881 with five head wounds with four of them indicating that he was on his right side when he received the deadly blows. Also Bradfords, *Arrow, Sword and Spear* shows his skull that was preserved by his people after the battle.

<sup>17</sup> Cottrell, *Warrior Pharaoh's*, 59.

<sup>18</sup> Fox, *The Chariot in Egyptian Warfare*, www.touregypt.net.

surpass those of the Hyksos.<sup>19</sup> The account of Ahmose I's campaign against the Hyksos is told through the conquests of a great warrior in the Egyptian army named Ahmose son of Ebana. His tale, found in his tomb at el-Kab is the only existing account of the final blows that expelled the Hyksos. Ahmose served his namesake King Ahmose in battles against the Hyksos at Memphis and at the three sieges on Avaris. As a young soldier he served on a ship called "Offering" and was later sent into Lower Egypt where he marched behind the King's chariot. Ahmose earned respect as a great warrior, and for his victories he was handsomely rewarded with gold, slaves, and land.<sup>20</sup> These rewards evidenced a new Egyptian focus on the military and value for military prowess. The account of Ahmose son of Ebana, while priceless as the only remaining primary source, is likely skewed and embellished to reflect personal glory rather than a true retelling of the revolt that removed the Hyksos, resulting in some substantial gaps in our knowledge of what happened. However, we do know that after the Egyptians regained control, the new Pharaohs began to rebuild their empire and expand it more than ever before.<sup>21</sup>

Undoubtedly, Egyptian use of the horse drawn chariot had been fundamental to their success in expelling the Hyksos. Not only had Egyptians adopted the chariot—they had nearly perfected it, constructing by the fifteenth century "the machine into the finest in the world."<sup>22</sup> The new Egyptian chariot, as we know from archeological evidence, was made of flexible wood and leather and was faster, stronger, and used more efficiently in battle than its Hyksos counterpart.<sup>23</sup> Previous chariots, such as the Hittite chariots, were made of solid wood with solid wood wheels held together by pegs, making them very heavy and hard to maneuver. In contrast, the Egyptians built chariots light enough to be carried by two men, or one man if necessary. Also, early chariots featured axles in the front or middle of the chariot platform. In order to increase the speed, stability and maneuvering capabilities, the Egyptians moved the axle to the rear of the platform. The Egyptians also innovatively and effectively placed archers in the chariot during battle. Over time the use of the chariot became intrinsically linked to the use of the composite bow.<sup>24</sup>

The mobility and efficiency of Egyptian chariot warfare ultimately changed the way the pharaohs ruled their kingdom, making them more imperialistic than had previously been possible.<sup>25</sup> Armies of the Old Kingdom typically ceased to advance once they reached the end of their borders; the Pharaohs of the New Kingdom did not. After the expulsion of the Hyksos, they began to pursue an offensive military campaign. The Egyptian army pursued the Hyksos into Retenu, also known as Canaan and elsewhere. Landscapes and terrain that had previously been too difficult for infantry units were now accessible to chariot squadrons. For the first time, Egyptian armies pursued invaders

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<sup>19</sup> Bradford, *Arrow, Sword and Spear*, 22.

<sup>20</sup> *Egypt: Ahmose son of Ebana - Autobiography*, [http://members.tripod.com/~ib205/ahmose\\_ebana.html](http://members.tripod.com/~ib205/ahmose_ebana.html).

<sup>21</sup> Gabriel, *Armies of Antiquity*, 63.

<sup>22</sup> Gabriel and Metz, *Sumer to Rome*, 76.

<sup>23</sup> Robert Drews, *The Coming of the Greeks: The Indo-Europeans Conquests in the Aegean and the Near East*, (Princeton, NJ: Princeton University Press, 1988), 84-85.

<sup>24</sup> Gabriel and Metz, *From Sumer to Rome*, 76-77. Pictures and reconstructed chariots also found at the website by Troy Fox, [www.touregypt.net](http://www.touregypt.net).

<sup>25</sup> Arther Ferril, *The Origins of War: From the Stone Age to Alexander the Great* (London: Thames and Hudson, 1985), 45.

outside Egyptian borders.<sup>26</sup> The New Kingdom revolved around these offensive, mobile armies.<sup>27</sup>

Little is known on the organization and structure of the Old and Middle Kingdom armies but it is evident that the new weapons and increased numbers of soldiers required the New Kingdom army to be highly specialized and controlled. No longer could the army consist of local infantry with minimal training, as both the composite bow and the chariot, the weapons that had made conquest possible, required extensive training and specialization. The army was divided into two principal units—chariot and infantry. Chariot units were comprised of elite soldiers and usually consisted of squadrons of twenty five, while the infantry had regiments of about two hundred men.<sup>28</sup> Despite the enormous importance of the elite charioteers, the military and its tactics still focused on the infantry, setting Egypt apart from its neighbors. As historian Troy Fox writes, “While the enemies’ chariots were built to defeat the opposing infantry, the Egyptian chariots were designed to provide their own foot soldiers with a defense from the enemies’ chariots.”<sup>29</sup> Once in battle, the charioteers were usually deployed first to serve as a shield for the infantry units. The rapid chariot advance allowed the infantry to follow and attack once the enemy was in their reach, which in turn allowed the Egyptian army to gain control of the battlefield quickly and decisively.<sup>30</sup>

At the beginning of the Eighteenth Dynasty, three pharaohs, often called “the Fighting Thutmosids” on account of their names, established Egypt as a world power.<sup>31</sup> Thutmose I began his reign at around 1524 BCE. Prior to his rule, the Egyptian army had created a protective buffer zone around Egypt, serving also to help establish contact with other Near East kingdoms. Thutmose I led his army into Mesopotamia, to a place known as Naharin, in the kingdom of Matanni on the Euphrates River. Here Thutmose I enslaved the so-called “dirty ones, the foreigners hated by the god.”<sup>32</sup> He also led his army to Nubia where the powerful Egyptian army faced a worthy adversary. Ahmose son of Ebana, the great warrior who helped to expel the Hyksos, also participated in these Nubian campaigns. The Ahmose accounts tell of how Thutmose I “became enraged like a leopard. His majesty shot, and his first arrow pierced the chest of that foe. Then those enemies turned to flee... a slaughter was made among them; their dependants carried off as living captives.”<sup>33</sup> The accounts of Thutmose I and Ahmose are probably biased, however it is apparent that the Nubians were vanquished, allowing Egypt to establish power in Nubia.

Thutmose II succeeded Thutmose I to the throne. His rule was brief, but he was able to maintain Egypt’s power in Nubia, while advancing into Syria-Palestine.<sup>34</sup>

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<sup>26</sup>Robert B. Partridge, *Fighting Pharaoh’s: Weapons and Warfare in Ancient Egypt* (Manchester, U.K.: Peartree Publishing, 2002), 192.

<sup>27</sup>Ferrill, *Origins of War*, 52-53.

<sup>28</sup>Gabriel and Metz, *From Sumer to Rome*, 14.

<sup>29</sup>Troy Fox, *The Chariot in Egyptian Warfare*, [www.touregypt.net/featurestories/chariots.htm](http://www.touregypt.net/featurestories/chariots.htm).

<sup>30</sup>Gabriel, *Armies of Antiquity*, 66-68.

<sup>31</sup>Cottrell, *Warrior Pharaoh’s*, 61.

<sup>32</sup>Bradford, *Arrow, Sword and Spear*, 22.

<sup>33</sup>*Egypt: Ahomose son of Ebana - Autobiography*, [http://members.tripod.com/~ib205/ahmose\\_ebana.html](http://members.tripod.com/~ib205/ahmose_ebana.html).

<sup>34</sup>Cottrell, *Warrior Pharaoh’s*, 72.

<sup>35</sup>Ibid. 75.

Thutmose II was succeeded by Queen Hatsheput, who maintained peace but allowed neighboring countries to grow in strength and number. The Hittite kingdom of modern day Turkey began to threaten the relatively new Egyptian rule of their lands.<sup>35</sup> While the Hittite rebelliousness was troublesome, it did not directly affect Egypt proper. However, when Hatsheput died, the King of Kadesh saw an opportunity to press his advantage by seizing control of Megiddo and using it as his base for strategic attacks on Egypt.<sup>36</sup> Little could the King have known that the new pharaoh, Thutmose III, would become one of the greatest warrior pharaohs in history. When Thutmose III heard that the King of Kadesh had a plan for attacking Egypt's holdings in Syria-Palestine, he seized the element of surprise and mobilized his army to attack Kadesh. The army that Thutmose III gathered for this advance on the people of Kadesh was built on "divisions of five hundred men with twenty companies in each division and five platoons in each company...[that] could march at a rate of about fifteen miles a day."<sup>37</sup> The Egyptian army, with chariot speed, made it to Gaza in about nine days. Somewhat sidetracked from a mission to the neighboring city of Joppa, Thutmose was informed that his army had gathered at Megiddo.<sup>38</sup> Thutmose chose to use the element of surprise and executed a plan of attack contrary to the advice of his generals and advisers by leading the army through a small and narrow pass to Megiddo. The plan was successful, catching the army of Kadesh off-guard. Upon seeing the massive army of the Egyptians the army of Kadesh scattered and retreated within the city walls. However, instead of quickly destroying the enemy in battle the Egyptian troops began to loot the camps. What should have been a quick victory became a siege on the city of Megiddo that lasted seven months.<sup>39</sup> Finally, the Egyptians built an enormous wooden wall around the entire city, rendering Megiddo helpless. The city surrendered. Strengthened by this victory, Thutmose continued to battle against the Matanni in northern Syria and would go on to lead campaigns in Lebanon. In total, Thutmose III led his army on seventeen campaigns. All were successful.

Thutmose III expanded the Egyptian empire further than any previous pharaoh and firmly established his place as one of the greatest Egyptian warrior pharaohs. Two hundred years later, Ramesses II would again utilize the chariot demonstrate Egypt's military prowess. When Ramesses II, or Ramesses the Great, acceded the throne around 1279 BCE, he was fully aware of the great history of his kingdom. His father, Sety I, had taught him to appreciate the past and to honor those great warriors that came before him. Sety had made rebuilding the military a priority during his reign, and Ramesses was a well-trained soldier who accompanied his father on campaigns with the Egyptian army. He wanted his army to resemble that of Thutmose III. Ramesses II continued the military restoration begun by his father and led his army into another great chariot battle at the city of Kadesh.<sup>40</sup>

The battle of Kadesh, took place around 1274 BCE. Both sides, the Egyptians

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<sup>36</sup> Ferill, *Origins of War*, 54.

<sup>37</sup> Bradford, *Arrow, Sword and Spear*, 24.

<sup>38</sup> *Ibid.* 25.

<sup>39</sup> Cottrell, *Warrior Pharaoh's*, 82.

<sup>40</sup> Rita A. Freed, *Ramesses the Great*, (Memphis, TN: 1987), 41.

and the Hittites, had large chariot-centered armies. The Hittites had been interfering with Egypt's power in Syria and had attempted to establish their own system of rule. When the Hittites gained control of the city of Kadesh, Ramesses II immediately began to mobilize his army for attack.<sup>41</sup>

However, the Hittites, led by the wise military leader King Muwatalis, anticipated the Egyptian attack. Muwatalis gathered his army, thought to be some twenty thousand men, equal to the size of the Egyptian army. Both the Egyptians and the Hittites had similar weapons including the penetrating axe and the composite bow, but the Hittite chariot was different than the Egyptian chariot. Hittite chariots were much heavier and were designed to carry three men, as opposed to the light-weight chariot of the Egyptians which only carried one or two men. The Hittites also employed their chariots differently, using them to charge at the enemy with the three men, a driver, spear thrower, and a shield bearer. While the lighter and more maneuverable chariots of the Egyptians could outrun the Hittites, the heavier chariot gave the Hittites a decisive advantage in head-to-head battle.<sup>42</sup>

The Egyptian army traveled at a great speed and arrived at Kadesh in only a month. The army was divided into four divisions: Amon, Ra, Ptah and Set, with Ramesses II leading the Amon division. As Ramesses approached Kadesh, just past the Orontes River, his army captured two Hittite spies sent to tell the Egyptians that the Hittite army had not yet arrived at Kadesh. Deceived by the misinformation of the spies, Ramesses set up camp outside Kadesh to await the Hittite army, which was actually only fifteen miles away on the opposite side of the city. When the Hittite chariots attacked, the surprised, scattered, and confused the Ra division, scattering them in all directions. The Ra division fled to the camp and encountered Ramesses' Amon division. Ramesses deserves enormous credit for what happened next, although perhaps not as much as is accorded him by Egyptian stories and artwork, found in the Ramesses temples of Abu Simbel and at Karnak. According to these sources, Ramesses boarded his chariot and single-handedly charged the Hittites and slew close to two thousand of the enemy:

Then His Majesty arose like his father Mont and took the accoutrements of battle, and girt himself with his corselt...His Majesty started forth at a gallop and entered into the host of the fallen ones of Khatti, being alone by himself, none other with him...found surrounding him on his outer side 2500...not one of them stood firm to fight him.<sup>43</sup>

Hyperbole notwithstanding, it is very likely that Ramesses the Great demonstrated exemplary leadership skills and was able to rally his troops to in their time of panic. Because the Egyptian chariots were lighter and faster, they were able to regroup quickly or escape quickly when necessary. However, even with Ramesses' leadership and the mobility of light chariots, the Egyptians ultimately unable to defeat the Hittites who sought refuge behind the strong city walls of Kadesh. Ramesses was forced to accept

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<sup>41</sup> Ibid. 41.

<sup>42</sup> Partridge, *Fighting Pharaoh's*, 247.

<sup>43</sup> Cottrell, *Warrior Pharaoh's*, 117. Translated from a temple erected by Ramesses II in his own honor.

defeat, and the two kingdoms signed a peace treaty that was honored for many years.<sup>44</sup>

The battles of Megiddo and Kadesh both demonstrated the changes that had occurred in Egypt after the adoption of the chariot. The military of the Old and Middle Kingdoms would never have been able to stage offensive attacks on the same scale as the New Kingdom. Not only were the weapons not available, but there were no leaders as capable as Thutmose III and Ramesses II. The chariot enabled New Kingdom pharaohs to fight offensive campaigns outside of Egypt's borders and gave rise to some of the greatest battles in history. New weapons and technology allowed Egypt to begin an era of kingdom building. Adopting the chariot enabled the Egyptian army to become more offensive and allowed the pharaohs to expand their kingdoms, and gain wealth and power in the world. Before the chariot, Egypt had existed for over fifteen hundred years without aggressively pursuing campaigns its borders, but the introduction and, most importantly, the near perfection of light-chariot warfare, made the Egyptian military one of the most powerful in the world and allowed Egypt to seek an active role in the world.

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<sup>44</sup> Ferrill, *Origins and War*, 56-60.



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