CWM 12245

Canadian Armour Passing through Ortona, by Charles Comfort.

ASSIMILATING URBAN BATTLE EXPERIENCE – THE CANADIANS AT ORTONA

by Ian Gooderson

Introduction

An enemy is best known by fighting him, for battle reveals his methods and tactics, and it indicates the ways and means of overcoming them. Such hard-won experience gained by a comparative *few* requires careful evaluation and the assimilation and dissemination of its lessons to ensure it benefits the *many,* and better prepares those yet untested for a similar challenge. Employing an example from the Italian Campaign of the Second World War, this article will describe how Canadian soldiers provided the Allied armies and their training organizations with valuable data on a form of fighting hitherto lacking in their experience against the Germans: the urban battle. In December 1943, following weeks of severe fighting to clear the Moro River, the British Eighth Army's 1st Canadian Division captured the port town of Ortona on Italy's Adriatic coast. Two battalions of the 2nd Infantry Brigade were principally involved, the Loyal Edmontons and the Seaforth Highlanders of Canada, along with supporting arms. The battle cost the Canadians 275 casualties, of whom 104 were killed.[1]

At Ortona, the Allies encountered, for the first time, a built-up area turned by the Germans into a defensive zone in which to fight not just a rearguard action but also a prolonged defensive battle. For what it revealed of German urban fighting techniques, Ortona was invaluable, and the experience was characterized by further significant features. Defending Ortona were some of the most combat-proficient and motivated German soldiers in the field anywhere – paratroopers of the 1st Parachute Division, whose battalions had been deployed into theatre to stiffen critical sectors of the German front in Italy. Unlike their opponents, the Canadians lacked experience *of,* and possessed very little training *for,* such a battle, but, nevertheless, they gained the upper hand in the fighting. They adjusted to an unfamiliar battle environment quickly, and they devised and employed the methods necessary to win that battle.

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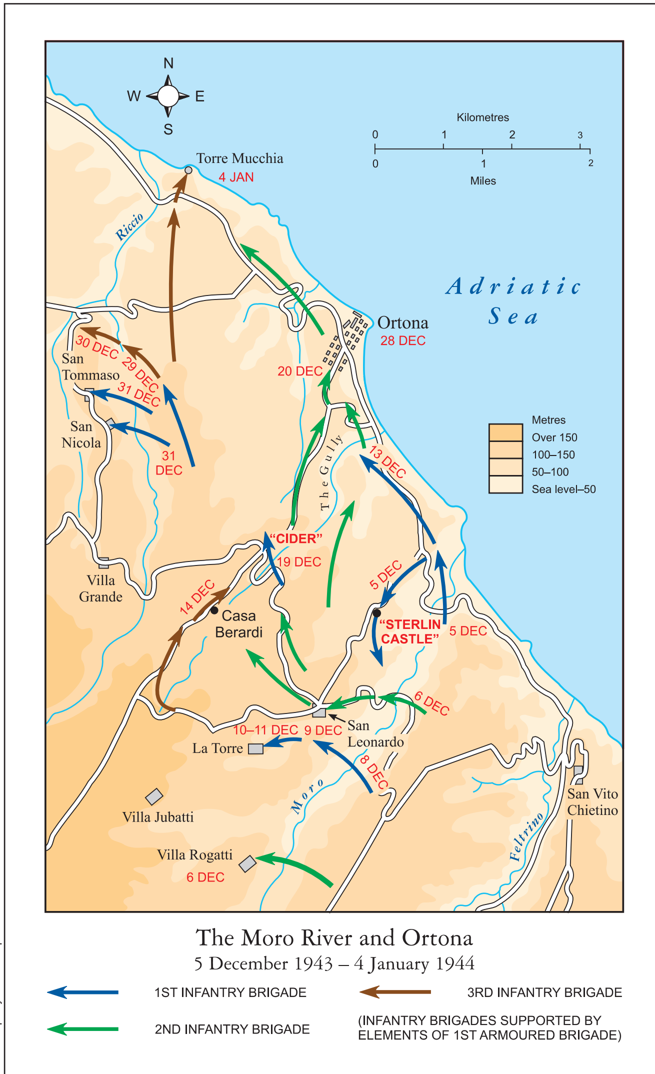
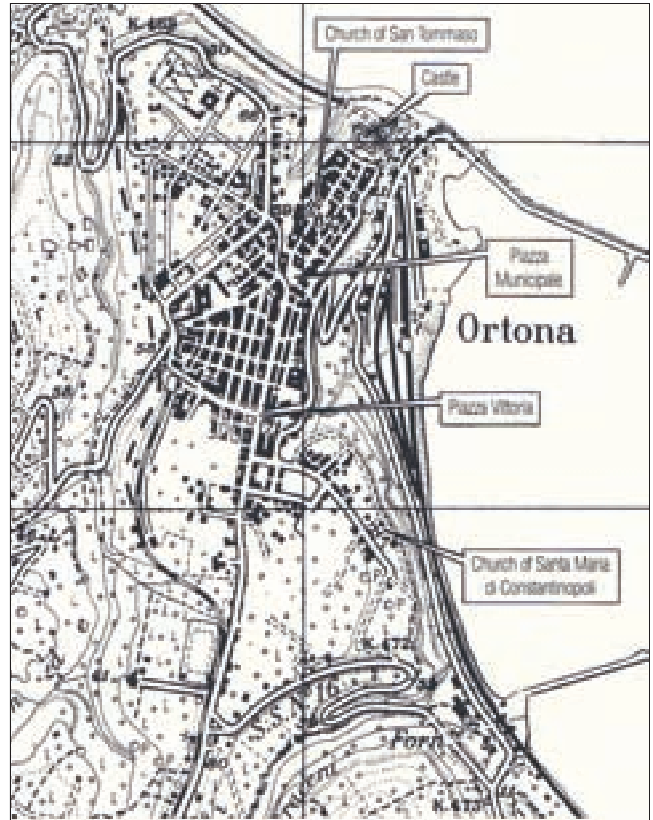


The Moro River and Ortona
5 December 1943 – 4 January 1944

Map by Christopher Johnson



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The Battleground

Ortona, a town only some 450 metres in width, edged to the east by cliffs overlooking the harbour, and to the west by a deep ravine, was approachable only from the south, and was a potentially strong urban defensive position. Its stone buildings offered formidable strong points. In the older, northern part of the town, the Cathedral Church of San Tommaso stood amid aged buildings of two or three storeys, the lower of which were often just a single large windowless room, overlooking dark and narrow cobbled streets. Many of the structures had deep cellars with underground passages linking several houses. The castle overlooking the port, its walls weakened by earthquakes and railway tunnelling, was not a keystone in the town's defence. To the south were modern dwellings and warehouses arranged in a rectangular layout, the mostly four-storeyed houses were situated practically wall-to-wall, and the streets were narrow. The Church of Santa Maria di Constantinopoli stood to the southeast. The principal coastal route, Highway 16, passed northward through Ortona, serving as the town's main street, the Corso Vittorio Emanuele, and it was one of few wide enough to accommodate tanks. Attackers had few options. Entering from the south, and restricted mainly to the Corso, they could be channelled into excellent 'killing grounds' dominated by fire along its route, and at the town's three open squares or piazzas. South to north, these consisted of the Piazza della Vittoria in the town's newer area; the Piazza Municipale joining the old and the new; and the Piazza San Tommaso near the castle.[2] Alternatively, the attackers would have to fight through the narrow and enclosed side streets. This would be, in any case, the only comprehensive way to clear the town of its defenders, but would entail a stiff fight requiring sufficient infantry to take and secure the town block by block.

Evaluating the German Defence

A feature of the defence was that the Germans, having no opportunity to construct specific concrete and steel pillbox type fortifications, improvised from what was available on site. The stone buildings of the town, especially in the older quarter, were sturdy enough to provide good protection for the defenders and their equipment. German engineers blocked

"The principal coastal route, Highway 16, passed northward through Ortona, serving as the town's main street."

road intersections and routes by demolishing the corners of buildings, the rubble of which was used to create roadblocks. The rubble, when piled high as anti-tank obstacles, was also difficult for infantry to climb, and it exposed them to fire if they attempted to do so. As the Canadians approached along a street towards an intersection, they found the block of buildings on each side demolished, denying them an overlooking view of German positions. Across the intersection, the corners of the opposite buildings on each side would also be demolished, the collapsed rubble forming a roadblock. Apart from the corners, these buildings were left mostly intact, and in their second or third storeys, the Germans placed machine guns with fields of fire covering the street and pavements along which the Canadians advanced. Anti-tank guns were also manhandled up to higher storeys to cover these approaches, and the Canadians reported two instances where the Germans had dismantled 88mm guns and reassembled them in such positions. The rubble roadblocks sometimes contained a well-concealed machine gun or anti-tank gun, and some anti-tank guns were sited in lateral streets covering intersections, waiting to ambush Canadian tanks. Most street intersections were covered by such positions containing two or three anti-tank guns operating in mutual support, and the paratroopers also made effective use of their liberal allotment of machine guns. Positions were also created in the streets and buildings leading to and from road intersections.

“The Germans also made ingenious use of booby traps.”

Mines were an important feature, and open stretches, such as those situated between the harbour and town, were heavily sown with a mix of anti-tank and anti-personnel mines. Closer into the town, the defences increased in complexity, designed as an interconnected web of strong points. Those in the streets were concealed in rubble, an entire building often being demolished to collapse into the street and to block it. Two or three machine gun positions would be dug into the ensuing rubble. These placements, in turn, would be covered by machine guns sited in the upper storeys of the overlooking buildings. The rubble would also be sown with anti-tank mines, some of which had long cords attached to a mine’s detonator, enabling a concealed paratrooper to explode it by pulling the pin from a safe distance upon an attacker’s approach, creating a devastating explosion by the sympathetic detonation of other mines. The mine threat ensured that Canadian tanks could not ram their way through the rubble obstacles until those obstacles had been checked and cleared. Placing anti-tank mines against a building and, similarly, detonating them from a distance could cause a collapse of masonry and rubble to block a route, or to blast entry into a building, or to break off an engagement and cover a German withdrawal to an alternative position once a local tactical situation had turned against them. Often, anti-tank mines were sown in a mix with anti-personnel mines, the paratroopers making extensive use of Italian wooden mines that defied the detectors of metal mines with which the Canadians were equipped.

“The Canadians found it difficult to track German movement and to determine accurately German strength.”

The Germans also made ingenious use of booby traps. The removal of one mine would detonate another buried underneath, making removal time-consuming and hazardous. But among the most dangerous booby-traps were those concealed in buildings unoccupied by paratroopers, or those concealed in buildings that they *did* occupy and had placed in anticipation of their withdrawal. Dark street entrances to buildings hid trip-wires waiting to detonate mines or explosive charges on the pull of an unwary boot, as did staircases. Canadian infantry became wary of attempting to break into buildings by smashing in the exterior doors with rifle butts or kicking them in, in case the doors were similarly rigged. Indeed, it soon became clear that the one way *not* to enter a building in street fighting was through the door. Once inside a building, it was unwise to pick up such inviting objects as discarded German weapons and map or document cases, or wine bottles, and *very* unwise to test the plumbing of dwellings fitted with internal lavatories. The same caution applied to items seen amid the street rubble. Entire buildings were rigged with explosives that could be detonated from a distance on the arrival of Canadian troops, or by timer after the Germans had departed. A particular ruse that caught out Canadian troops on at least one occasion was for the paratroopers to evacuate a building in the hope that observing Canadians would enter it. Once they had, explosives packed into the basement were detonated.

The basic German tactical unit was the light machine gun crew, also equipped with one or two of what reports described as ‘grenade throwers,’ indicating the paratrooper reliance upon this weapon. These teams fought stubbornly, sometimes to the last, but, whenever possible, they withdrew to prepared alternative positions. The Canadians noted how the paratroopers sacrificed good fields of fire in order to achieve surprise, holding fire until certain of achieving kills. In house-to-house fighting, the Germans positioned machine guns at the back of rooms, covering windows, and, where possible, doors. They fired only when Canadian troops had actually broken into a room, and even after a grenade had been thrown, any German left alive and able to fire his gun would not do so until the Canadians had burst into that room. The paratroopers’ fire discipline, the Canadians acknowledged, was excellent. All stairways leading

The battle for Ortona was characterized by bitter street fighting and house-clearing.

to upper storeys were potential death traps, since the paratroopers placed machine guns to kill anyone ascending.[3] Attempts to climb stairs might also bring down a shower of grenades from above. In addition to their small tactical groups, many paratroopers fought individually, and some, with telescopic sights attached to their rifles, served as snipers. The buildings, rooftops, and rubble offered myriad good firing positions, and a single well-placed sniper could control considerable ground. He could pick his targets, favouring what appeared to be officers, NCOs, and signallers, and, moving between positions, he was difficult to locate. The Canadians found the paratroopers were well supplied with grenades. Indeed, they would indiscriminately throw them down into the streets to deter an approach. There were also instances when Canadians had cleared mines out of a rubble pile, only to see paratroopers hurling more mines into the street ahead of them from neighbouring windows. It was quite obvious that the paratroopers were skilled in street fighting, and they had a systematic approach to turning streets and blocks, even individual buildings, into strong points. Experience was an asset, and among the veteran paratroopers there were certainly some who had learned their street fighting in Russia.[4]

The battle also showcased two potent new German man-portable anti-tank weapons – the *Panzerschreck,* firing an 88mm hollow-charge projectile, and the *Panzerfaust,* firing a hollow-charge grenade. Both were capable of knocking out a Sherman tank, and each typified the simply engineered and mass-produced anti-armour weapons that were equipping German troops in increasing numbers. The paratroopers also employed some man-pack flamethrowers. Of these, the Canadians were disdainful, reporting that while they had a range of about 50 yards, they did very little damage, although their detrimental effect upon morale was acknowledged. Heavier weapons, such as mortars, artillery, and even a few tanks supporting the paratroops with their fire, were positioned in the northern outskirts of Ortona, although no German tanks ventured into the streets of the town itself.

Apart from defensive tactics and weaponry, another significant characteristic of the German defences was the number of troops deployed to fight in Ortona, and their ability to move and to be supplied. The Canadians were first engaged by the 2nd Battalion of the *Luftwaffe*'s 3rd Parachute Regiment. This battalion bore the brunt of the defence until 24 December, by which time losses and exhaustion, added to the increasing weight of the Canadian attack, convinced General Heidrich, then commanding the 1st Parachute Division, to commit his divisional reserve, the 2nd Battalion of the 4th Parachute Regiment. The close-in nature of street fighting meant that the battle could not be controlled much above the section or squad level, and references to battalions or even companies are misleading. It is reckoned that little more than 100 paratroopers were in action in the town at any given time, with others resting in the town's cellars, and, particularly, its railway tunnels, or they were re-deploying.[5] The Canadians found it difficult to track German movement and to determine accurately German strength. Areas thought to be cleared were re-infiltrated by snipers and machine gun teams, who worked through the rubble and through the underground passages and tunnels that at first the Canadians did not realize existed. Much of this movement occurred at night, when neither side deliberately sought battle, since it risked killing or being killed by one's own side, and such skirmishes were difficult to control. The paratroopers also moved, for a while at least, undetected through buildings and through entire *blocks* of buildings in order to relieve colleagues, and to bring forward ammunition and supplies. Then, the Canadians discovered the small holes, just large enough for a soldier to crawl through, that had been made to link room to room and building to building, some of which were simply hidden behind furniture. Through these portals, until the Canadians learned to search for them and block them, the paratroopers infiltrated to re-occupy buildings and ground in the rear of the Canadian positions, compelling the Canadians to fight for them again.

National Archives of Canada [NAC] PA – 152835

Captured German paratroopers pass a Sherman tank of the Three Rivers Regiment in Ortona, 23 December 1943.

Evaluation of an Urban Battle

A Canadian post-battle report described street fighting as an art acquired by training, a high standard of discipline and careful planning, or by bitter experience.[6] Ortona was more the latter, as the Canadians had not been deliberately trained for the challenge, and urban fighting had not figured highly at the infantry battle schools. Indeed, a company commander of the Edmontons, whose troops conducted much of the fighting in Ortona, later observed that if those battle schools they had attended ever taught them anything about street fighting, the troops had forgotten it by the time of the battle.[7]

Reports emphasized the necessity of a well-organized and detailed plan for the clearance of an enemy-held town. At Ortona, this came about after the fighting had begun, and the nature of the battle had become apparent. Similarly, the Canadians stressed the importance of pre-battle reconnaissance and the allowance of time for this essential prerequisite. There had not been much pre-battle reconnaissance at Ortona, where realization came late that the Germans were in the town in strength, and were prepared to fight. Air reconnaissance photographs were considered essential. From these, the Canadians benefited greatly, with photographs being made available down to section commanders. Street fighting proved disorienting, and, with buildings and landmarks being deliberately demolished beforehand by the Germans, or subsequently destroyed in the fighting, an awareness of the town's fundamental overall layout was invaluable. Reconnaissance photographs were needed in quantity, and time was needed for commanders at all levels down to section level to study them. Urban fighting took time, and that was a recurring theme in evaluations of Ortona. Information from patrols and aerial photographic reconnaissance enabled an attack plan dividing the town into sectors. The Canadians reported that a defended town had to be cleared sector by sector, with specific troops allocated to each area. These troops would carry out a systematic and gradual combing of the town, advancing in one direction and avoiding any deviation that might enable the Germans to re-infiltrate areas believed cleared, or might compromise advance momentum.

Urban fighting was a task for fresh troops. "More initiative is demanded of section commanders, and indeed of the individual man, than in any other type of fighting," warned one Canadian report.[9] This was a reasonable interpretation of the Ortona experience, for house-by-house and room-by-room fighting was a matter of small groups, of pairs, or even of individuals. Under such conditions, instructions could be given for the capture of a block or individual building, but once the fighting was underway, tactical decision-making devolved quickly. The emphasis upon the need for fresh troops is indicative of hard experience, for the Canadian units at Ortona had been fighting since the crossing of the Moro River. Moreover, the transition to street fighting and a different pattern of battle to that hitherto experienced had been sudden, and, for the most part, unanticipated, with little time for psychological adjustment. This latter aspect had far-reaching effects, for while the infantryman had to adjust to fighting in and through buildings and closed-in streets, officers at all levels had to adjust to a different pace of battle. One of the most significant aspects of street fighting related to its tempo, for it was quite different to that of other forms of infantry fighting. "It cannot be overstressed," a report observed, "that once you are committed to close quarter fighting in a town, you must be prepared to sacrifice speed." Failure to accept this would result in 'crippling' casualties and the depletion of reserves and supplies. Therefore, the Canadians advocated one plan and one set of orders to cover the immediate future, warning that "...it was no good giving out an over ambitious set of orders." Nor could the presence of civilians

be allowed to affect planning, although whatever *could* be done for them *was* done.[9] In fact, street fighting could not be rushed, and to attempt to do so was to court defeat. With experience, there emerged a set of principles for the planning and preparation of attacking a defended town that reflected the prolonged and step-by-step nature of such fighting:

> "One of the most significant aspects of street fighting related to its tempo, for it was quite different to that of other forms of infantry fighting."

- To divide the town into sectors, with an infantry company and supporting arms assigned to clear each sector;
- To divide each sector into designated platoon tasks;
- To make only short definite bounds within each sector and to consolidate before the next bound;
- To clear and consolidate each sector before moving against the next sector;
- To never relinquish ground once cleared; and
- To move forward supplies and ammunition to storage dumps located as close as possible to the fighting troops.[10]

With the identification of such principles came a wider methodology covering each stage and level of an urban battle, from initial planning through the gaining of a foothold in a town, down to the actions required of platoons and sections for the capture of individual buildings. It was a perceptive and largely successful attempt to interpret the confused and chaotic urban battle, and from the Ortona experience was distilled a battle-proven template that included guidance on tactical methods, the utility of weapons, and on the coordination of infantry and supporting arms in the urban battleground.

Breaking In

Again, citing the Ortona experience, the transition from one form of fighting to another was difficult, and commanders had to have the requisite situational awareness to organize battalions and sub-units for street fighting, and to get supporting weapons brought forward in time. The transition occurred with the gaining of an initial foothold in the town, and subsequent evaluation recognized this as the last point at which it was possible to use supporting weapons according to the hitherto-prevailing pattern of battle. In making the initial break-in assault on a selected part of the town, every form of supporting fire, including artillery, was to be employed – to blast the assault troops into the first buildings, to isolate by fire the chosen assault sector from German reinforcement, and to defilade it from German fire.

Thereafter, artillery was felt to be of limited value. Street fighting was a task for close-support weapons, the medium machine guns, mortars, tanks, and anti-tank guns. These weapons were to be integrated in the fire-plan for the initial break-in, but once the infantry had secured their foothold within a building or block of buildings at the edge of the town, they were then needed forward quickly. The anti-tank guns, in particular, had to be brought up at once, and as their towing vehicles were unlikely to be able to get forward due to German fire or mines, they had to be manhandled, at least, for the last 100 yards of their required positioning.[11] Once the assault troops were established in the first buildings and their supporting weapons had been brought up to them, the urban battle could begin. From this point, observed a report, the fighting would become a grim infantry battle, with anti-tank guns and mortars assisting as best they could.[12] Accompanying the infantry would be sappers and pioneers, ready to deal with German booby traps, and to carry out demolitions needed by the assault.

photo NAC PA 116852

'B' Company of the Loyal Edmonton Regiment on the advance.

Controlling the Urban Battle

The Canadians reckoned that once town clearing began, full direct control of the fighting was impossible at any higher level than the infantry section.[13] The objectives assigned to companies, platoons, and sections became the control framework of the battle. Company and platoon firm bases with reserve ammunition were required, and their locations had to be known to all. Checkpoints were needed, with company and platoon commanders given specific times for transmitting reports back to battalion headquarters containing essential battle information, such as the positions reached by the forward troops, and the objectives secured. "It is vitally important," stressed a Canadian report, "that the battalion Commander receives a constant flow of accurate and up-to-date information."[14] The Ortona experience indicated that some sense could be made of the confusing urban battle, but clearly there were problems, especially with respect to communications, with lines likely to be cut, and signallers becoming targets for snipers. At Ortona, the No. 38 wireless sets were found impractical for street fighting, although whether it was due to their bulkiness (they weighed about 5 ½ kilograms), compromising a soldier's ability to move quickly, or whether it was (most likely) due to the fact that transmitting and reception problems in a built-up area were not documented.[15] At any rate, this meant greater reliance upon runners to pass information, a hazardous business in a sniper-infested urban environment.

photo NAC PA 153938

One of the narrow streets confronting the Seaforth Highlanders of Canada as they fought through the western side of Ortona.

The Infantryman and His Weapons

> *"It was found that the lighter a man fought the better he fought..."*
>
> – Canadian Deductions from Ortona Street Fighting[16]

Street fighting was not for the heavily laden infantryman, a point not lost upon the Canadians. Assault infantry left their packs at the firm bases established by their companies and platoons, to be brought up subsequently by the reserve platoon once buildings were captured and consolidated. Apart from the need to be able to move *swiftly* and *unencumbered,* the Canadians also stressed the importance of being able to move silently. This related to house-to-house fighting, and, particularly, to room-to-room fighting, and rubber boots or even gym shoes were eventually determined to be the most suitable form of footwear for these battle conditions. Practical experience revealed that when troops were using explosives to break into the upper storeys of a building, the paratroopers inside were likely to think it was shell or mortar fire, and they would not be alerted to a sudden attack from above. However, it was the 'clatter of the army boot' that always gave the attackers away.[17]

Canadian reports on weapons effectiveness indicated that street fighting was a grenade battle. In fact the No. 36 grenade was described unequivocally as "...the basis of the whole attack."[18] So close was the fighting that the use of any other form of high-explosive was usually impossible, and it was important that every infantryman carried as many of these grenades as possible, an effective method for doing so being to wear the issue leather jerkin with the webbing belt on the outside. This enabled the carrying of six to eight grenades without risk of the detonating pins releasing, and also provided storage for spare magazines for the Bren guns and light automatic weapons.[19] Another type of grenade employed extensively in the battle was the No. 77 smoke grenade. Smoke was used liberally to mask movement whenever the infantry crossed ground covered by German guns, especially when they were about to assault a building or block of buildings. These grenades were usually carried on the back, to minimize the risk of causing severe phosphorous burns if they prematurely detonated. Pioneers accompanying the assault troops were equipped with slightly heavier anti-tank grenades that, during street fighting, were used as a portable demolition charge for forcing entry into buildings, or for blasting German strong points. Infantry firepower in close fighting depended primarily

upon the infantry section's Bren light machine gun and the Thompson sub-machine gun. The Canadians advocated that street-fighting troops should be armed with these weapons, and they were used to spearhead attacks in the wake of grenades. However, most infantrymen would have been armed with their standard combat rifle, although the subsequent battle evaluation mentioned them only by implication in relation to snipers. The Canadians reported that they found use of their own snipers very beneficial – not only for sniping but also for serving as what amounted to forward observation posts.[20] Snipers were usually provided by the reserve platoon holding the firm base, not the assault platoon. A weapon that seems to have come into its own at Ortona was the PIAT anti-tank projector, of dubious value in its *intended* role, but nonetheless described by the Canadians as 'invaluable.' They employed them to fire into houses to silence strong points and to make entries, and for blasting rubble piles containing mines or concealed German machine guns. The infantry mortars lacked the portability required for street fighting, although they were used. The 2-inch mortars could go forward to provide close support to the assault troops, and they were employed to fire smoke to defilade German-occupied buildings that could fire upon an attack, and to blast and scatter the rubble heaps with high explosive. The heavier 3-inch mortars, each of which weighed about 56 kilograms in total and needed three men to carry them forward, were considerably less agile and therefore less useful in close support. Where good positions for their baseplates could be found, they were set up, and then employed to isolate from reinforcement German-occupied buildings about to be attacked.

"The Ortona experience indicated that some sense could be made of the confusing urban battle, but clearly there were problems..."

Tanks and anti-tank guns provided heavier close support, and cooperation and attack coordination between them and the infantry was efficient and successful. Tanks had limited manoeuvrability in closed-in urban terrain. In Ortona, they were most effective as mobile pillboxes, too vulnerable to German mines and anti-tank weapons to go ahead of the infantry, they stood back, blasting strong points with their main armament, and covering the assault troops with their Besa machine guns. Tank/infantry liaison was good. Indeed, the Canadian division had recently refined this to a high pitch during the fighting over the Moro. At Ortona, tank commanders regularly reported in to the infantry checkpoints for battle directions.[21] Tanks worked closely with the anti-tank guns, each covering the other when moving up to support the infantry. Tanks were also invaluable for bringing up ammunition and supplies to the forward infantry, for, while jeeps and Bren gun carriers were used, their vulnerability meant that they had to be kept well clear of the fighting zone. Block by block and street by street, the anti-tank guns were manhandled to keep pace with the infantry. Six-pounders provided the close support, although some seventeen-pounders were brought into the battle in its latter stages, the guns being used to fire high-explosive rounds through the windows and doors prior to an assault, to suppress the defenders, and to blast away booby traps and mines. They also fired upon the corners of buildings, targeting suspected German machine guns and anti-tank guns, and were used to level rubble piles. Firing armour-piercing rounds, they were also used to blast entry holes into the walls of buildings for the assault troops. The infantry indicated targets to the anti-tank gunners with Very pistols, smoke from the 2-inch mortars, or smoke grenades. While street fighting fell mainly to the infantry, it was clear from the subsequent evaluations of the Ortona battle that success was attributable to all-arms teamwork.

Tactical Methods for Town Clearing

Each separate attack upon a block was part of a wider attack *in depth,* with platoons alternating as the assault troops and as reserves. Once one block had been captured, the lead platoon immediately made a firm base and consolidated, turning it into a strong point against a likely German counter-attack, checking for booby traps and delayed-action mines, and looking for the concealed 'mouse holes' through which Germans might re-infiltrate. The reserve platoon then took over the attack for the next block. It was acknowledged that the method taught in training, that of two platoons, one on each side of a street, working forward in mutual support, proved sound in practice.[22] One platoon attacking a house on its side of the street would be covered by the platoon on the opposite side, while supporting heavy weapons isolated the building by fire and smoke.[23] It was usually found that when one building or block had been captured, the German paratroopers abandoned the opposite building across the street.[24] This was to preserve the integrity of their defence, their mutually supporting and interlocking fields of fire having been broken. Block by block and sector by sector, this extraction process continued, with platoons 'leap-frogging' through blocks and buildings. Once a designated sector was captured and consolidated, another company would take over to attack the next sector. The company holding the captured sector would turn it into a firm base and organise the isolation by fire and smoke of the next sector to be attacked. It is thus clear why reports stressed that street fighting took time, and that it could not be rushed without penalty.

"At Ortona, tank commanders regularly reported in to the infantry checkpoints for battle directions."

For the clearing of individual buildings, the Canadians described two methods. The most likely was that of taking a building by assault, and clearing it room by room. This, it was very strongly emphasized, should be done 'from the top down,' rather than 'from the bottom up.' "It was found that to clear a house from the bottom to the top was appallingly expensive," noted one report, "...and for every German killed going up the stairs it cost us one of our own men."[25] To tackle the ground floor first was precisely the form of attack that the German paratrooper defence was configured to meet, but once they had gained some battle experience, the Canadians refused to oblige the German tactic. Once one building in a block had been captured, the assault troops broke into the adjoining building by blasting entry holes through the roof, or through the partition walls in the top storeys. For these combat initiatives, 'beehives' (small explosive charges placed against the wall) were used, or the heavier grenades carried by pioneers. This was variously termed in subsequent reports as 'mouse-holing,' or 'house-holing.' Once inside the building, the assault troops worked their way down to the ground floor, throwing No. 36 grenades into each room before entering it. Stairs were sometimes too hazardous to risk, even from the top, and so, floors were 'beehived' and grenades thrown down into the rooms below.[26] While this clearing was taking place, the supporting platoon and the heavier weapons would be covering the windows of the buildings opposite with fire, and would be, where possible, covering likely points of egress through which the paratroops might try to escape. The first building in a given block had to be cleared from the bottom up, there being no alternative, and in this instance, the ground floor rooms had to be thoroughly cleared before attempting the stairs. Once inside the ground floor of a building, and their entry being assisted by fire from the heavier supporting weapons, such as anti-tank guns and tanks, the troops 'grenaded' each room. In some instances, large and multi-storeyed buildings remained too formidable to clear once the ground floor had been taken, the risk of heavy casualties precluding any attempt by the assault troops to fight their way to the top. This led to a second main method of clearing, that being to demolish a building without actually fighting room to room. With the ground floor secure, pioneers would bring in explosives, often packed into captured German water containers for ease of handling, and place them appropriately. Then, the assault troops and pioneers would leave and the explosives would be detonated. The ensuing rubble would be cleared under the cover of tanks and machine guns. Alternatively, a building might be shot into ruins by anti-tank guns and tanks, then rushed by the assault troops under the cover of their fire.[27]

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Reinforcements Moving Up in the Ortona Salient, by Lawren P. Harris.

In fighting room to room at close quarters in enclosed spaces, initiative, swiftness of movement, sharpness of senses, and speed of reflexes were the determinants of success and survival. The Canadians warned that once an assault on a block of buildings was under way, there could be no stopping to tend casualties. Only when a block had been completely secured could any wounded be collected and taken to a ground floor, where initial care could then be administered, and from where stretcher-bearers could evacuate the wounded back to the checkpoints to begin their journey to the rear areas. Nor was it safe to leave unguarded the buildings once cleared. Consolidation was imperative, although it necessitated a drain on fighting strength. A minimum of two men left as sentries, with all likely points of entry firmly covered, was considered essential for a captured building. Otherwise, the paratroopers would return, to harass and undermine the ongoing assault from the rear, and to force a costly repetition of the whole business of clearing. This posting of sentries was particularly important at night, when German infiltration parties were active, although the Canadians warned that, for these duties, men who had been firing Bren guns in enclosed rooms during the day should not be employed, since they would be temporarily deaf.[28] A small point perhaps, but upon such details depend men's lives, and sometimes even the outcome of battles, and no aspect of the experience gained of street fighting could be even lightly neglected.

> "The first building in a given block had to be cleared from the bottom up, there being no alternative..."

Conclusion

During the battle for Ortona, the Canadians innovated, improvised, and successfully exploited the effects of their personal weapons and supporting arms under largely unforeseen circumstances. Following a week of fighting in Ortona, the Canadian division became Eighth Army's acknowledged street-fighting experts. In serving notice upon the Allies to expect further such battles, Ortona also carried implications. In Britain, armies composed mostly of untried formations waited to open the main 'second front' in northwest Europe, where they could expect an equally stubborn and desperate German defence. Ortona therefore merited close study, and received it from training staffs throughout the Allied armies.[29] Canadian assessments figured highly, and they remain an instructive case study in the evaluation of battle experience.

The analysis, opinions, and conclusions expressed or implied here are those of the author and do not neccessarily represent the views of the JSCSC, the UK MOD, or any other government agency.

NOTES

1. Lieutenant-Colonel G. W. L. Nicholson, *The Canadians in Italy* (Ottawa: Queen's Printer, 1956), p. 333. Casualty data is from this source.
2. Town descriptions from Nicholson, pp. 324-325; Fred Gaffen, *Ortona: Christmas 1943* (Ottawa: Canadian War Museum/Balmuir Books, 1988), pp. 18-19; Mark Zuehlke, *Ortona: Canada's Epic World War Two Battle* (Vancouver: Douglas & McIntyre, 2004), pp. 36-39. Zuehlke's impressive and detailed study is an essential source for students of the battle.
3. The principal German machine gun was the rapid-fire MG 42.
4. Zuehlke notes that some of the paratroops had fought at Leningrad and in the early stages of the battle for Stalingrad. p. 283.
5. *Ibid,* p. 268.
6. *Experiences from Fighting in Ortona,* in TNA WO 232/17.
7. Colonel (then Major) J. R. Stone, quoted in Gaffen, pp. 37-38.
8. Report, *Canadian Deductions from Ortona Street Fighting,* in TNA WO/232/17.
9. *Street Fighting,* (another report based upon Canadian experience at Ortona), in TNA WO 32/11458
10. *Ibid.*
11. *Ibid.*
12. *Ibid.*
13. *Canadian Deductions from Ortona Street Fighting.*
14. *Ibid.*
15. *Street Fighting.*
16. *Ibid.*
17. Report, *Further Notes on House and Street Fighting,* DMT/49/MT1 in TNA WO 232/17.
18. *Street Fighting.* The No. 36 Grenade weighed a little over half a kilogram and could be thrown by hand a distance of 20 to 30 metres. Upon detonation, the grenade would burst into some 80 shrapnel fragments, the danger area being 18 metres in all directions. In an enclosed space, such as a room, the lethality was likely to be greatly increased. See Handbook on the British Army 1943 (Originally US Army Publication TM 30-410, 1943), reprinted and edited by Chris Ellis and Peter Chamberlain (London: Arms & Armour Press, 1976), pp. 141-142.
19. *Street Fighting.*
20. *Ibid.*
21. *Canadian Deductions from Ortona Street Fighting.*
22. *Street Fighting.*
23. *Ibid.*
24. *Canadian Deductions from Ortona Street Fighting.*
25. *Street Fighting.*
26. *Further Notes on House and Street Fighting.*
27. *Experiences from Street Fighting in Ortona.*
28. *Canadian Deductions from Ortona Street Fighting.*
29. Nicholson, *op. cit.*